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BETTER FRUIT

RECEIVED
SEP 24 1912
U. S. Department of Agriculture

VOLUME VII

SEPTEMBER, 1912

NUMBER 3

PACKING AND MARKETING EDITION



SPITZENBURGS

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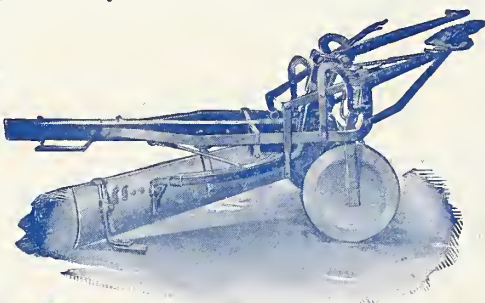
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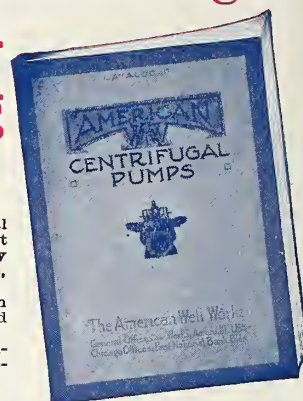
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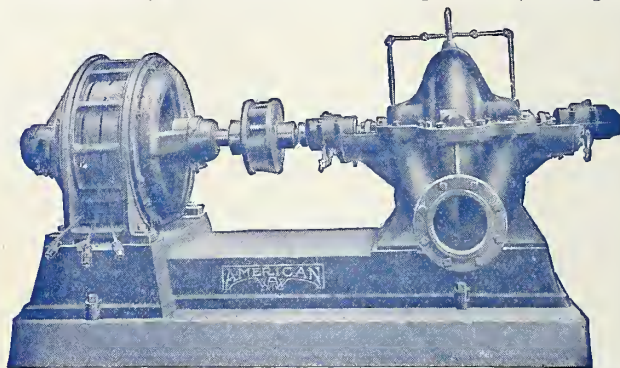
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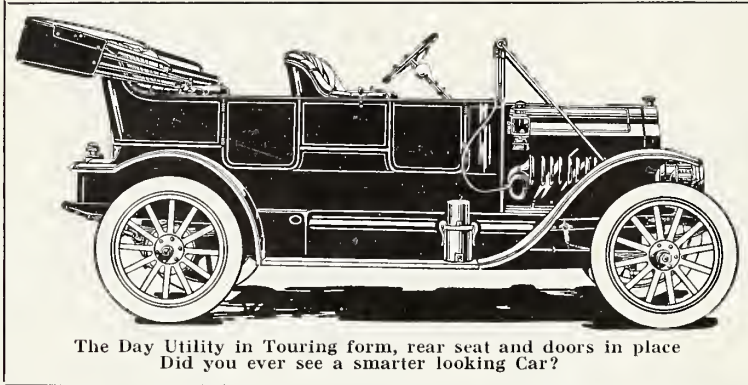
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The Day Utility in Touring form, rear seat and doors in place
Did you ever see a smarter looking Car?

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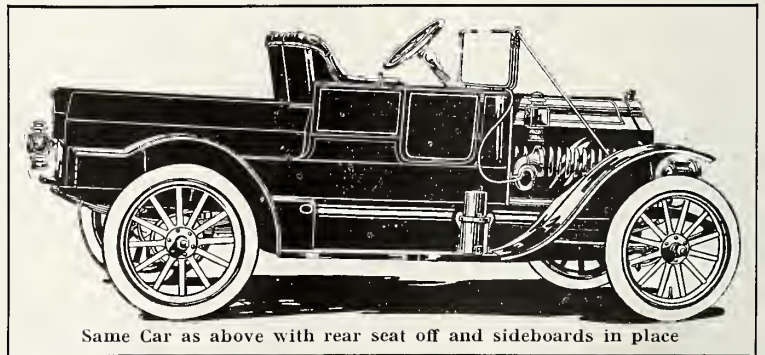
marks an era of economy and convenience in automobile building and automobile owning that places the motor car within reach of thousands who have heretofore considered it an expensive luxury.

The Day Utility Car is actually two perfect cars in one. It is a roomy five-passenger car, designed along strong, graceful lines—a car of beautiful proportions—and yet—you press a spring lock—the rear seat and doors come off—side boards are slipped in place—and in half a minute you have a clean cut, snappy delivery wagon with ample body room and a capacity of 1,000 pounds.

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A car that will do the work of two or three horses—do it better and quicker, and one that is never too tired after the day's work is over to take the family out for a thirty or forty or fifty-mile spin in the evening.



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The illustrations shown are from photographs and give an accurate idea of the car in its two forms.

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BETTER FRUIT

AN ILLUSTRATED MAGAZINE PUBLISHED MONTHLY IN THE INTEREST OF MODERN, PROGRESSIVE FRUIT GROWING AND MARKETING

Science of Grading and Packing Apples—Diagonal Pack

By Roy C. Brock, Hood River, Oregon

GRADING for both quality and size is so closely related to the packing of apples that it seems almost necessary to deal shortly with it. Grading should begin with the picking of the fruit from the trees. Pickers, after having taken the fruit from the trees into pails, bags or other receptacles, should be required to empty them into the apple boxes, which are to be taken to the places for storing, not by pouring, but by hand, and then as though each fruit was an egg. During this transfer the picker should look for fruits badly blemished, and place either in boxes or in piles under the shaded side of the trees, in order that they may be gathered and so disposed of as each grower's conditions will permit. The fruit so assorted may then be stored in the place for receiving them, and left until such time as the owner is desirous of packing, at which time the fruit should be carefully assorted in readiness for the packers. Of course the appliances used will largely govern the further direct plan of procedure. However, the writer, after carefully investigating the plans used in Wenatchee, Yakima, Southern Idaho and Hood River, believes the most convenient plan for handling, and the one that brings the best results as to saving of time, expense, labor and from general confusion, is the proper establishment of appliances as follows. (This refers to the handling of the average crop of from 2,000 to 20,000 boxes of apples; either greater or smaller crops may require different plan of procedure):

In building a storing house with packing compartment thereto, the opening between the storing room and packing shed should be made in the center

of the side of the storing room, and not in the end of the building. By using the proper and most complete packing table all the materials needed in packing may be readily at hand and save considerable loss of the packer's time in waiting to be supplied with same. The packing tables should be equipped with proper and handy places for

and No. 2 show a sufficient quantity of the sized apples used by No. 2 in completing his nearly finished box, No. 1 may then commence a box of the same size, and likewise each other packer. In this way all the sizes may be kept cleaned from the tables and a packing of the different sizes distributed to each packer in proper turn. Of course the most important feature of a successful packing crew is a perfect system. A complete system cannot be brought about by proper fixtures alone. In fact some very inconvenient packing sheds have, with careful thought of the foremen, brought out a system seemingly impossible to attain.

Packing is the classification of fruits into their proper sizes by placing the fruits of the same size solidly into boxes in such a manner as to insure uniformity of appearance, neatness and protection from bruising. The purpose of careful packing is to make the box of fruit attractive as possible, and thereby receive the highest possible price for it.

There have been a number of different systems of packing in boxes followed on the Pacific Coast for a number of years, and this was brought about in an endeavor to adapt the size and shape of the fruit to the size and shape of the box used in that particular locality from which the different systems originated. After a number of years' experiment nearly all of the sections found it impossible to suit the size and shape of the fruit to the box, so have rearranged their ideas and are now suiting the size and shape of the box to the size and shape of the fruit, and have reduced the systems practically to one, and in such a way that every size or shape of apple grown may be neatly and solidly packed by the

Features of this Issue
SCIENCE OF GRADING AND PACKING APPLES
THE DIAGONAL PACK
THE SQUARE PACK
THE OFFSET SYSTEM
NORTHWEST GRADING AND PACKING RULES
PRODUCERS' ORGANIZATION AND MARKETING AGENCIES
RELATION OF MEMBERS TO GROWERS' AND SHIPPERS' ORGANIZATIONS
STANDARDIZATION
PICKING, PACKING AND PACKAGES
MARKET LETTER FROM GERMANY

lining paper, layer board, wrapping paper, etc., and so arranged that the packer may have three different sizes before him at one time. For instance, while packer No. 1 is packing, say, 72, 112 and 128, packer No. 2 may utilize the three probable other sizes that No. 1 cannot then use—80, 88 and 96. As packer No. 1 completes one of his numbers he has but to notice the size about completed by No. 2, and if the contents of the tables used by No. 1

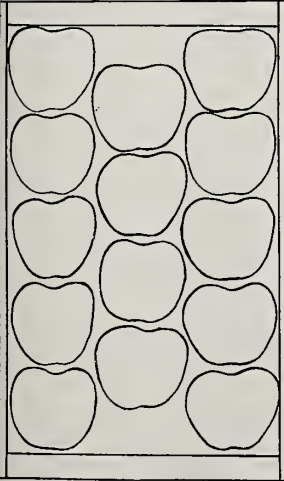


Figure 1—41 Apples Northwest Standard Box

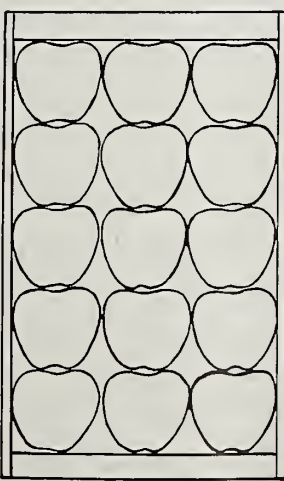


Figure 2—45 Apples Northwest Standard Box

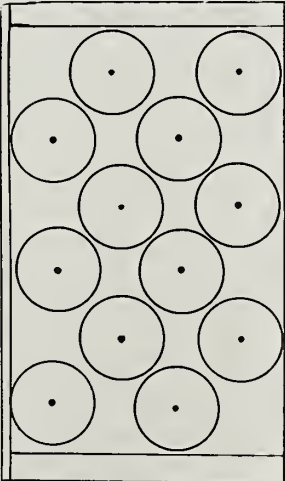


Figure 3—48 Apples Northwest Standard Box

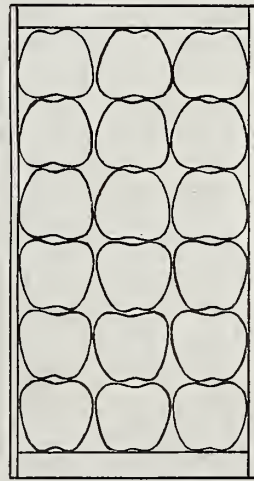


Figure 4—54 Apples Northwest Special Box

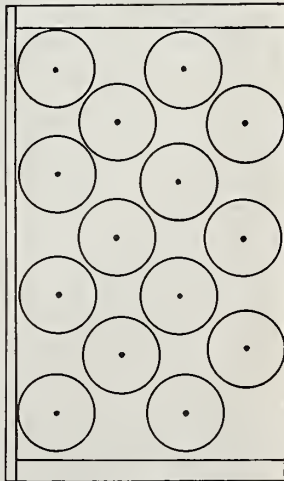


Figure 5—56 Apples Northwest Standard Box

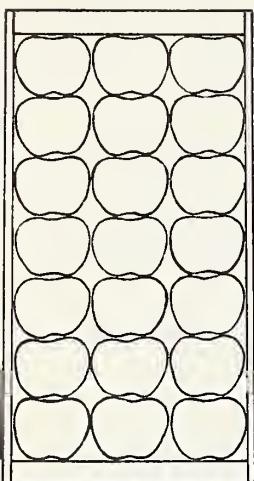


Figure 6—63 Apples
Northwest Special Box

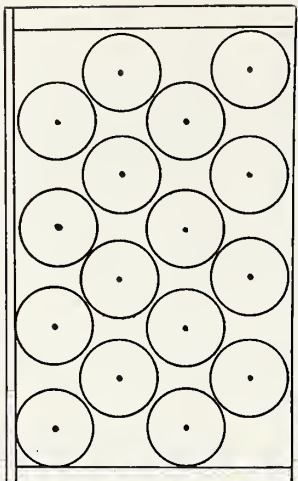


Figure 7—64 Apples
Northwest Standard Box

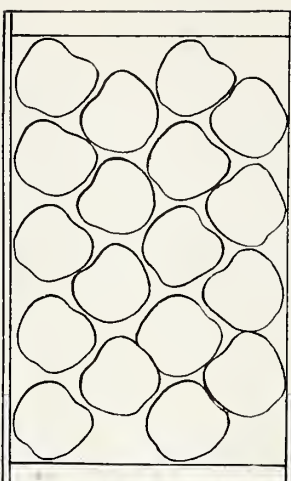


Figure 8—72 Apples
Northwest Standard Box

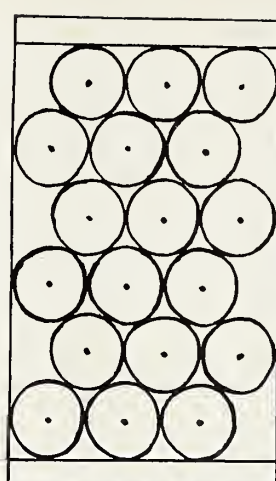


Figure 9—72 Apples
Northwest Standard Box

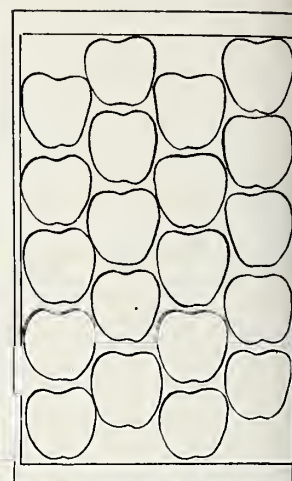


Figure 10—80 Apples
Northwest Standard Box

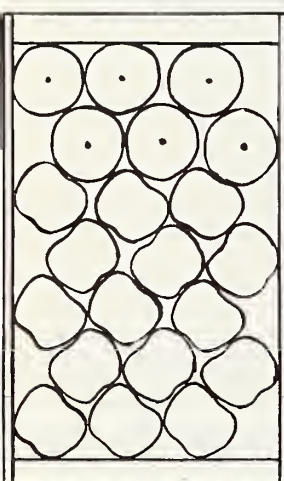


Figure 11—84 Apples
Northwest Standard Box

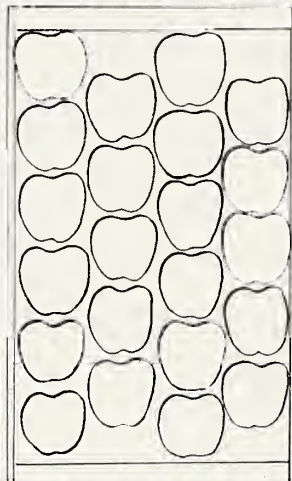


Figure 12—88 Apples
Northwest Standard Box

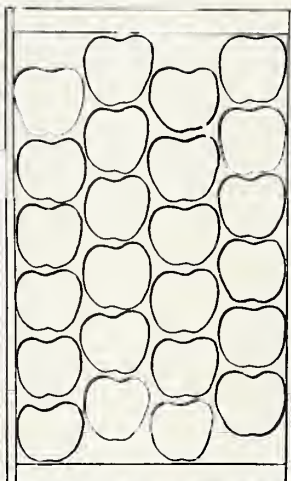


Figure 13—96 Apples
Northwest Standard Box

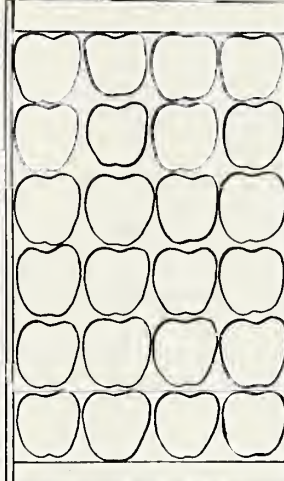


Figure 14—96 Apples
Northwest Standard Box

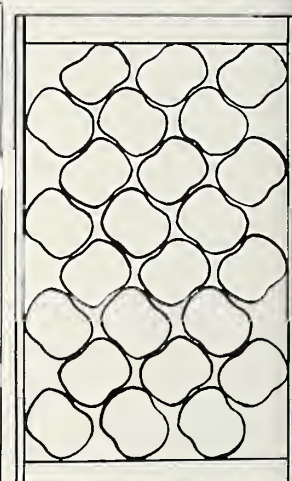


Figure 15—96 Apples
Northwest Standard Box

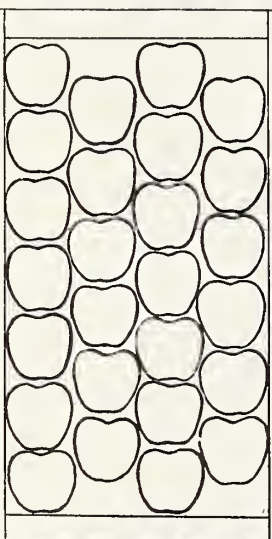


Figure 16—104 Apples
Northwest Special Box

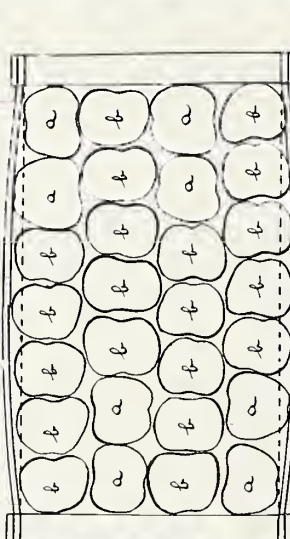


Figure 17—112 Apples
Northwest Standard Box

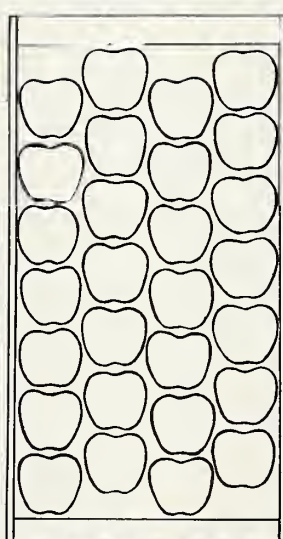


Figure 18—112 Apples
Northwest Special Box

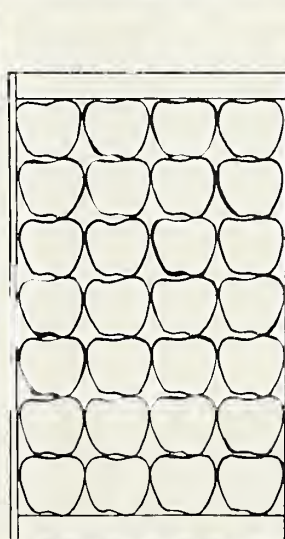


Figure 19—112 Apples
Northwest Standard Box

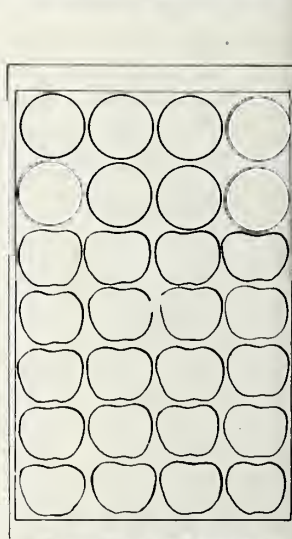


Figure 20—112 Apples
Northwest Standard Box

use of two boxes, i. e., the Northwest Standard ($10\frac{1}{2} \times 11\frac{1}{2} \times 18$ inside measurement, containing 2,176 cubic inches, without bulge) and the Northwest Special ($10 \times 11 \times 20$, inside measurement, containing 2,200 cubic inches, without bulge).

At this point I wish to warn the purchaser of boxes against improperly made boxes, for there is nothing so distasteful to the trade as a poorly manufactured box. Do not buy apple boxes

with heads less than three-fourths inch in thickness. Do not buy boxes with sides less than three-eighths inch in thickness. Do not buy boxes with top and bottom board thicker than one-fourth inch, for these must be thin and springy. Do not buy boxes, unless the top consists of two pieces and the bottom of two pieces, with two cleats each for top and bottom. Do not use sides made of two pieces, even though tongued and grooved, for they are much

weaker than single piece material of the same thickness, and when a box is tightly packed will bulge, and as apple boxes should always be handled on the sides, when so handled will undoubtedly damage the fruit. This is also the reason for insisting on full three-eighths-inch thickness in these pieces.

Returning to topic just left, both these boxes, Northwest Standard and the Northwest Special, should, when packed, have a swell in the center of

the box on both top and bottom of about three-fourths of an inch on each side. The manner of bringing this about will be dealt with later in this article, and thereby adds to the cubic contents of the box.

The size of the apple is invariably determined by the diameter of the apple from cheek to cheek at the widest point, never from stem to blossom, hence the reason why an apple should never be placed stem or blossom-end toward the

sides of the box. Hardly an apple is absolutely circular in shape at its greatest cheek circumference, and it is here that the packer may take advantage of this irregularity in packing Ben Davis apples, one of the most difficult of apples to pack, for the reason that they are about the same distance from stem to blossom as from cheek to cheek, and will not, when turned, have brought about the results usually attained by turning in this manner. However, as

before stated, if the packer will carefully save for the end of the boxes those in even a slight degree irregular and place at the ends so as to keep the apples lowest where they will not prove too high, and by the use of the more nearly circular ones through the center, a beautiful crown may be brought about.

The diagonal system as used in the Northwest Standard and Northwest Special boxes is made up of the follow-

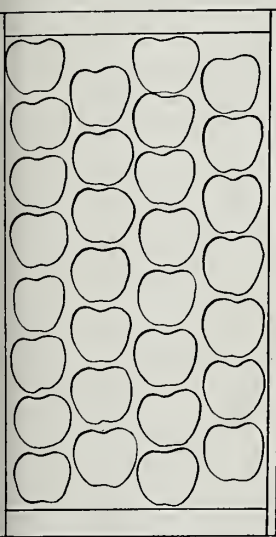


Figure 21—120 Apples
Northwest Special Box

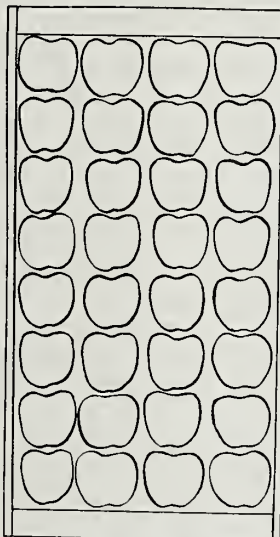


Figure 22—128 Apples
Northwest Special Box

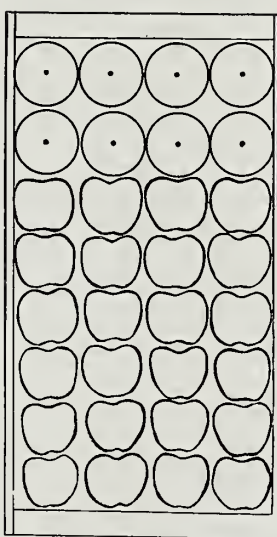


Figure 23—128 Apples
Northwest Special Box

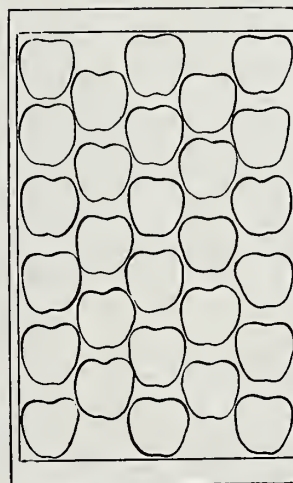


Figure 24—138 Apples
Northwest Standard Box

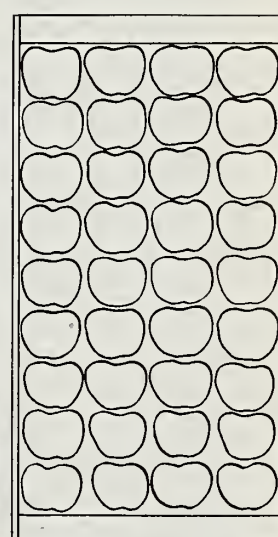


Figure 25—144 Apples
Northwest Special Box

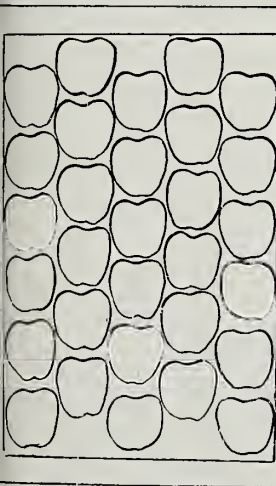


Figure 26—150 Apples
Northwest Standard Box

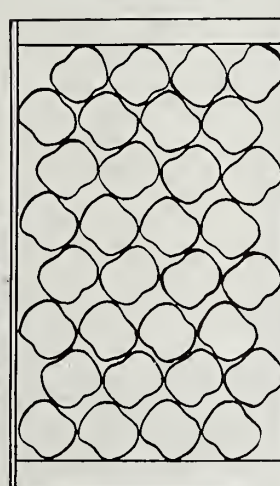


Figure 27—160 Apples
Northwest Standard Box

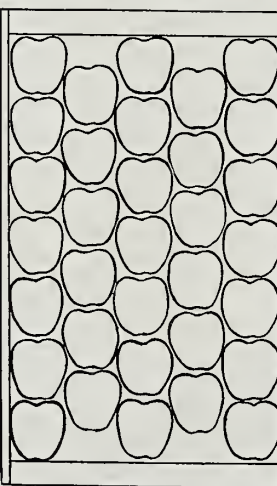


Figure 28—165 Apples
Northwest Standard Box

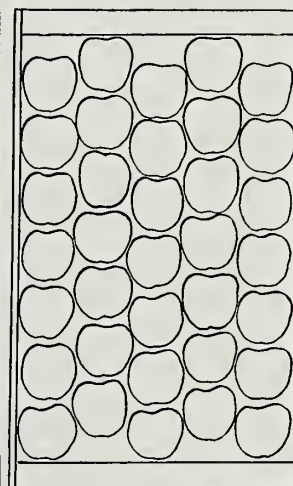


Figure 29—175 Apples
Northwest Standard Box

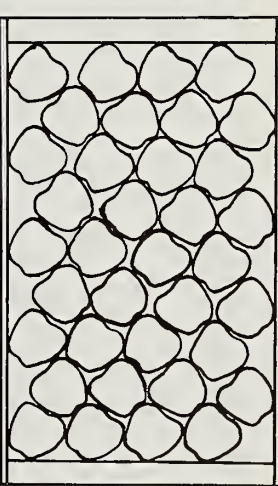


Figure 30—180 Apples
Northwest Standard Box

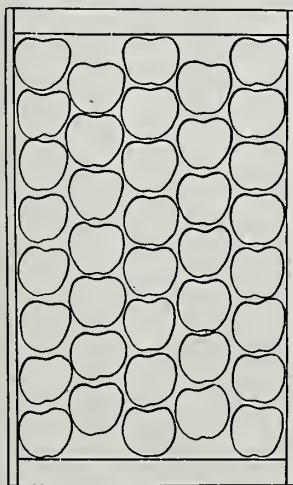


Figure 31—190 Apples
Northwest Standard Box

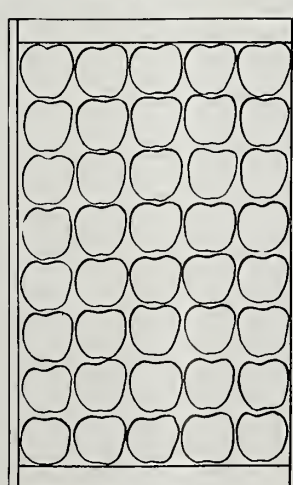


Figure 32—200 Apples
Northwest Standard Box

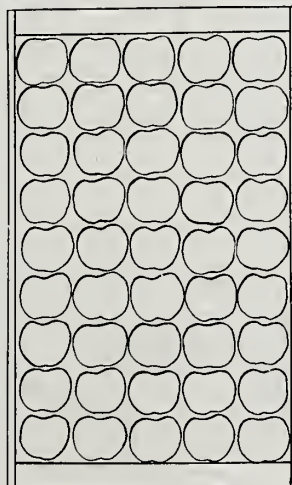
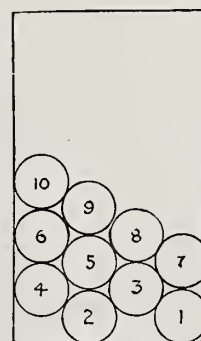
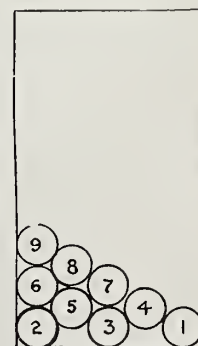


Figure 33—225 Apples
Northwest Standard Box

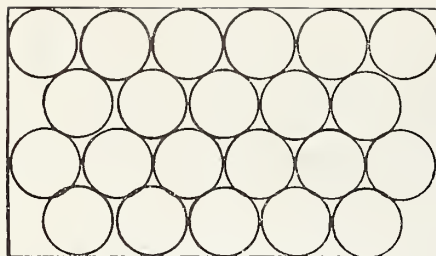


How to Start a 2/2
Diagonal Pack

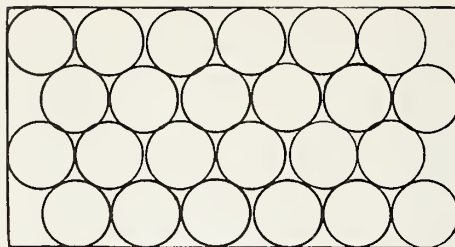


How to Start a 3/2
Diagonal Pack

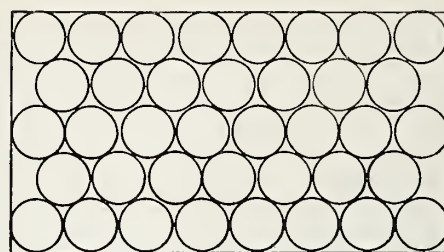
Northwest Special Box



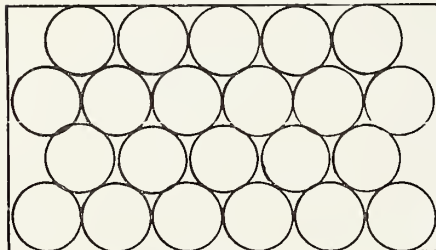
First and Third Layers



First and Third Layers

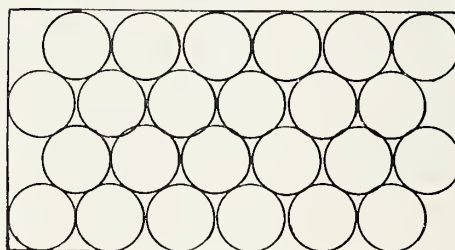


First, Third and Fifth Layers



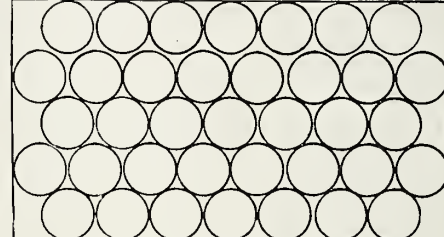
Second and Fourth Layers

Diagonal 2/2 pack, 4 layers, 88 apples
Northwest Special Box



Second and Fourth Layers

Showing diagonal 2/2 pack, 4 layers, 96 apples
Northwest Special Box



Second and Fourth Layers

3/2 pack, 4 1/2 tiers, 5 layers, 188 apples
If layers are reversed there will be 187 apples
Northwest Special Box

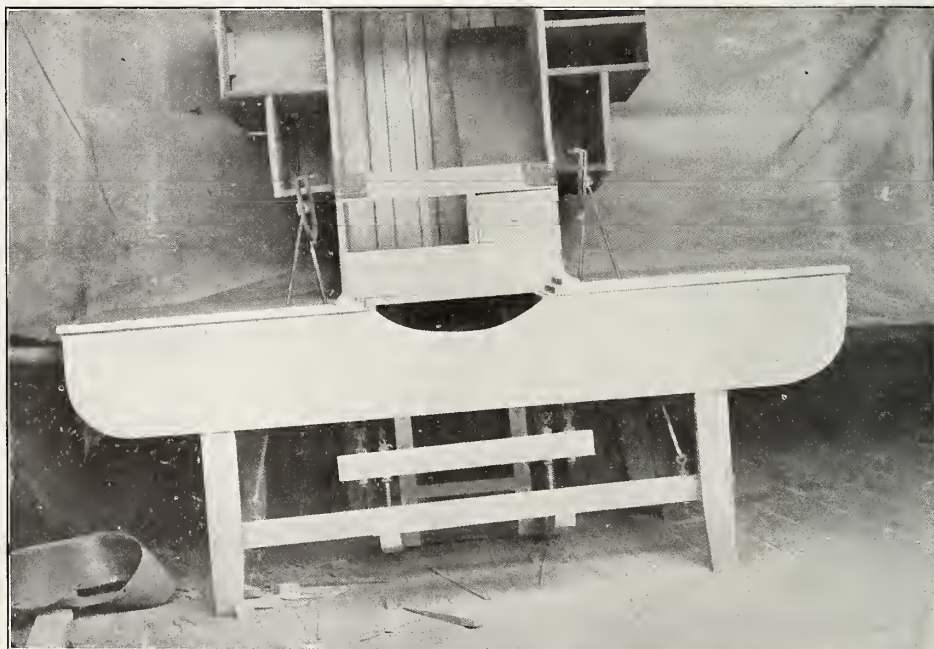
ing sizes: 41, 48, 56, 64, 72, 80, 88, 96, 104, 112, 120, 128, 144, 138, 150, 165, 175, 190, 200 and 225.

The sizes 41, 48, 56 and 64 are largely used for exhibition purposes, although a few boxes of these sizes are packed of certain large growing varieties. You will notice that most of the packs are what is known as the two-two. In packing any one of these start by placing one apple in the lower left-hand corner and the other in the center of the space left from the cheek of the apple placed in the corner to the opposite side of the box. This will leave a space on each side of the apple last placed of equal width. Settle firmly back into the spaces then left two more apples in exactly the same relative position on the other side of the box. Continue this until the opposite end of the box is reached, where there will be a space which, by a firm pressure downward and toward the packer, will enlarge the space sufficiently to permit of the last two apples being fitted snugly into place and at the same time take all of the extra slack out of the layer. Begin the second layer by placing the first two apples into the two little pockets formed by the spaces and the first four apples in the first layer, and continue to the end of the box as in the first layer, ending up with last two apples in the pockets similar to those at the beginning of the second layer. Continue to build up the third and fourth layers in the same way as the first and second, always placing the apple in the pockets formed and never directly over the cheek of the apple below (except, of course, where necessary in the straight four-tier pack, which is as little used as possible, as it is very likely to bruise the fruit and create a blemish).

Oftentimes, in order to keep the two-two pack from coming too high at the ends of the box on sizes ranging from 41 to 72, inclusive, particularly on the larger of these sizes, it is necessary, because of the length of the apple, to turn all the layers of the box so that the apples are either stem or blossom

toward the top or bottom. Where apples are like the Wagener, or some of the other flat varieties, it sometimes becomes necessary to turn a row or two at one end of each layer in order not only to lower the ends but to fill up in length the space yet left, alternating so that the rows turned with the stem or blossom toward the top or bottom of the box will be on layers Nos. 1 and 3, on the end of the layer farthest from the packer, and Nos. 2 and 4 on the end nearest the packer. The reason for turning in this way is that, until one layer is almost completed, it is hardly possible to know how many rows must be turned in each layer. This can be determined as the end of the first layer is reached, and the same number turned in each succeeding layer as above stated, first at one end and then the other. The reason for alternating the turning of the apples on each layer is that, should the nearest rows on each layer and the farthest be

turned and the rest on edge, it would make the ends too low and the change from turned apples to those checked abrupt and unsightly, besides allowing the cover to rest only against the cheeked apples, and allow an opportunity for the flat ones to become loose in the box. No definite rule can be given for turning of apples in this way other than may be determined by trial of each variety. Should more than two rows be required to be turned it would either indicate that the packer was not making the rows fit snugly across the box or that the variety was decidedly flat and should be packed entirely on edge. This, of course, does not apply to cases where all the apples are turned flat. Never turn an apple stem or blossom directly toward the side of the box. Often apples are partially turned in order to form pockets for the next ones, but this is not directly to the side and is permissible. Never pack apples on cheek at the end



A. I. Mason Adjustable Box Press

Manufactured by R. B. Bragg & Co., Hood River, Oregon, with complete attachments. Conveniently arranged to hold rubber stamps, cleats and all necessary articles used in nailing boxes.

rows of the layer and flat in the middle of the layer. This will cause the ends to be high and the centers low.

Ordinarily exhibitors endeavor to find proper shapes of apples to do away with turning flat in order to make a uniform display of the cheeks. But commercially this is unnecessary, as the apples are entirely wrapped, and when inspected by prospective purchasers are usually taken from the sides of the box where all layers may be reached, and only a single apple at a time inspected and replaced. In this way no lack of uniformity of position is displayed. The straight four-tier packs, 96, 112, 128 and 144, are to be avoided as much as possible for reasons as before mentioned. However, it is almost impossible to pack a crop of any size without using these packs. When they must be used be very careful to follow the outline just given as to turning the apples flat and never allow the four apples in each row to be loose from side to side of the box. This does not mean that they should be forced in so tight as to bulge the sides, but just tight enough that there will not be a space the thickness of a sheet of paper between them. I wish to state right here that the writer has had the teaching of many beginners in packing and has found beginners have more trouble resulting from this one thing than from all others combined. Make the apples fit snugly across the box. The next greatest fault is in keeping the size of all the apples the same in each box. Mr. Packer, if you do not have the size of apple on the table that you are packing in the box either wait for more of the proper size or start the size

you have on the table in another box. You will no doubt have trouble sizing them at first, but after a couple of weeks' steady and conscientious sizing you will find you feel almost like a veteran at it and will wonder why it was ever hard.

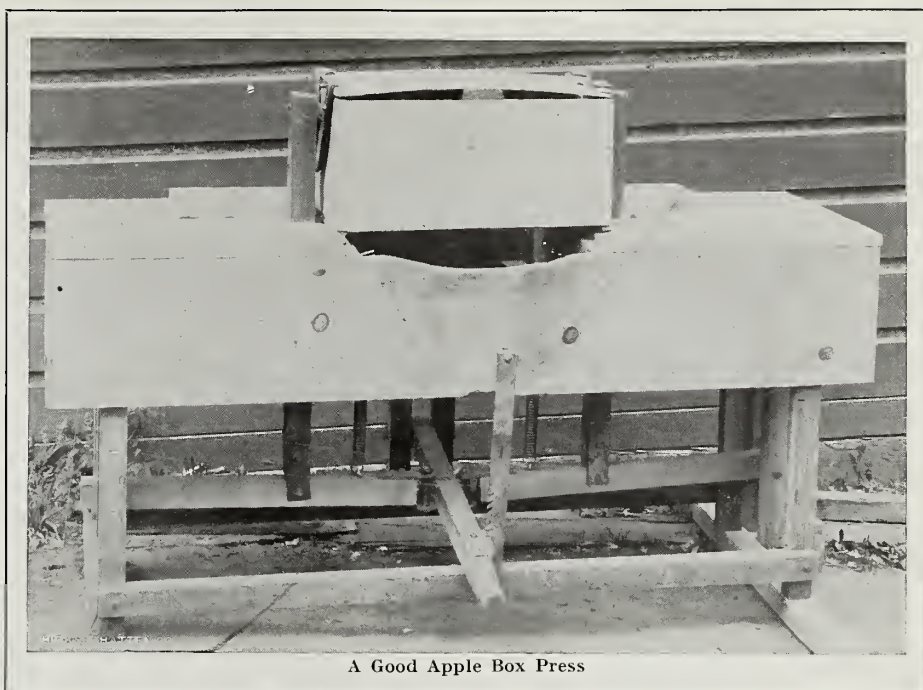
Among other points for the beginner or the improperly taught to remember is never to load the packing table with several boxes of apples at the same time. The more apples and the more sizes from which to choose the apple needed adds to the difficulty of choice, and this ordinarily will hold good for

the packer of long experience, for you will very often find him rolling over a heap of apples trying to find the ones wanted when he has, right on the top before him, just the one wanted. Rolling and handling in this manner is injurious to the fruit.

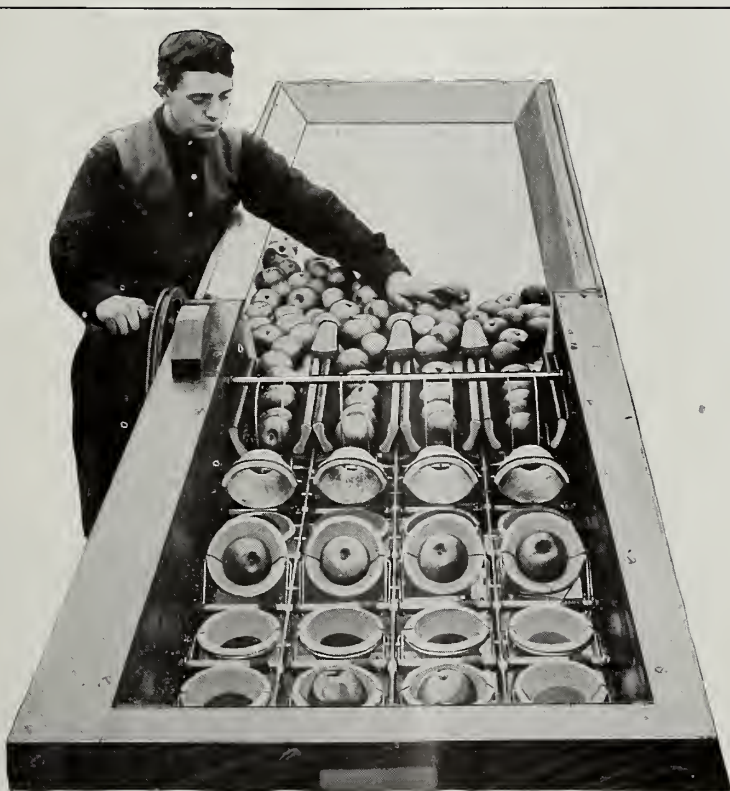
When the larger sizes have been packed, and it becomes necessary to pack those commonly known as the four and a half-tier, the pack is started with three apples across the end of the box, one in each of the corners nearest the packer and one in the middle. Then place an apple in each of the two pockets thus formed and then three in the pockets next formed until the end of the layer is finished. This layer may end three across or two across, as the case may be, determined by the size of the apple used. However, the next layer will start with two apples placed in the pockets formed by the first five apples and space. Continue this until the box is completed. It is found on most varieties that 138 and 150 are best packed flat through the entire box, always as in the large sizes of the two-two, using those shortest for the rows next to the end of the box and the longer through the centers. The 165 and 175 usually pack with part of the rows flat toward the ends and centers on edge. These packs are all known as the three-two.

The 200 and 225 are the straight pack of five-tier, and the same general plan will apply as is used in the 112 and 128 where packed a straight four-tier pack.

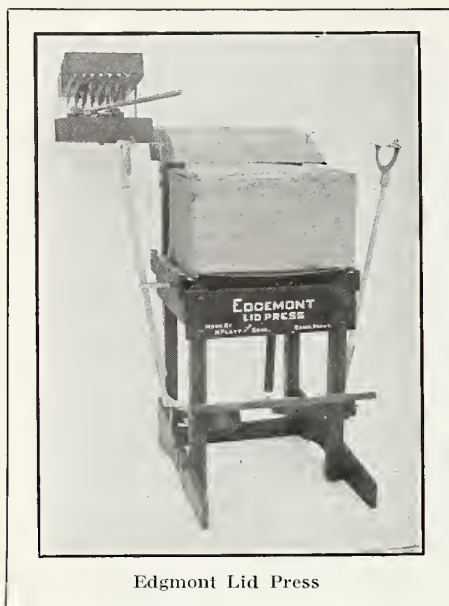
You will note by the following summary, in which sizes are given and the boxes in which they are to be packed, also classified in tiers, that the purchaser would, upon reading the number of apples marked upon the box, immediately know the tier, but should the tier only be marked he would in each case have four guesses coming. The tier of boxes is entirely unnecessary, except possibly where the dealer might wish to cover up the fact that a three



A Good Apple Box Press



An Apple Grading Machine at Work
Which will enable fruit growers to get a better and even pack



Edgemont Lid Press

and a half-tier was a larger apple than the purchaser had desired, or where a four and a half-tier may be smaller than supposed. This practice can only hurt the grower in the long run, and my advice is to use the number of apples in the box rather than the tier.

Northwest Standard Box—3-tier, 41, 48, 56, 64; 3½-tier, 72, 80, 88, 96; 4-tier, 112; 4½-tier, 138, 150, 165; 5-tier, 175, 190, 200, 225. Northwest Special Box—4-tier, 104, 112, 120, 128; 4½-tier, 144.

Should paper for lining, layer boards and wrapping be used care should be taken to have all as neat as possible. First line your box by taking two sheets of lining paper in one hand and holding at the ends with both, then place the left hand into the box in such manner as to let the end of the paper extend over the crack in the center of the box about one and a half inches, then carefully crease in the bottom crack at the bottom of the side; then crease down over the top of the side board. Then remove one of the sheets, and by fitting the crease made by the top of the one side board to the top of the other side board you will have a neatly creased paper with exactly the same lap on top and bottom. Then put in a layer board and commence with packing. In taking the wrapping paper use a rubber finger stole, which may

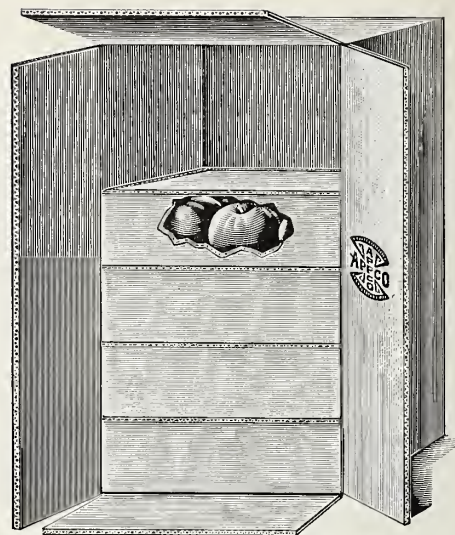
be secured at any drug store, hold the palm of the hand downward and picking up the sheet of paper with the thumb and forefinger, but not turning the hand over, as seems most natural, hold in the same position as at the time of taking the paper and then place the fruit held in the other hand into the paper against the palm of the other, then the same hand to smooth the paper to fit the apple, giving a little twist to hold the wrapper in place. Then place the apple in the box with the ragged ends upward for two layers and downward for the remaining layers.

Offset System, Including the Square Pack

The writer here wishes to repeat one paragraph of the foregoing article, namely, the definition of packing: "Packing is the classification of fruit in the proper sizes by placing fruit of the same size solidly into boxes in such a manner as to insure uniformity of appearance, neatness and protection from bruising. The purpose of careful packing is to make the box of fruit as attractive as possible to the purchaser and obtain thereby for it the highest possible price."

Generally speaking the diagonal system is considered more acceptable to the trade than the offset system. However, there are several advantages to the grower who is a beginner in the business and wishes to get out the best possible pack with packers who are not experienced. With the diagonal system it is much easier to vary the size of the fruit used in each box from the bottom and center layers without materially spoiling the appearance on top. The inexperienced grower or foreman would, therefore, be led to believe from the surface appearance that the under layers had been packed as they should have been. The poor work, however, would undoubtedly be discovered on opening the box at its final destination and complaint made by the parties inspecting it. With the offset system a single apple of improper size will bring about a condition through the general pack and on the surface layer that cannot possibly be covered up. On the other hand, when both systems are properly used the diagonal is more to be desired for the reason that fewer of the apples come in sizes known as straight packs, i. e., 45, 54, 63, 112, 128, 144. In the offset packs the spaces show on the sides of the box, where they have a disagreeable effect upon the eye of the purchaser.

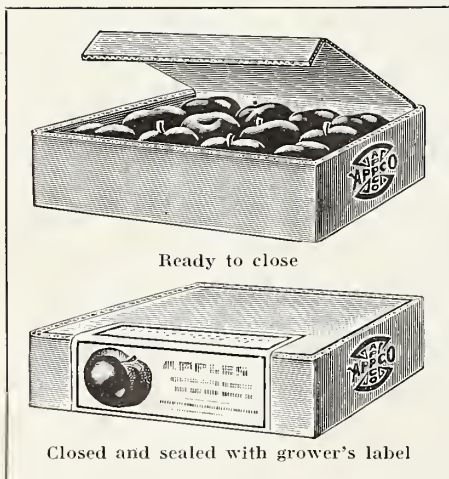
The offset system used in the Northwest Standard box (10½ x 11½ x 18 inches, inside measurement,) and the Northwest Special box (10 x 11 x 20 inches, inside measurement,) is made up of the following sizes: 41, 45, 54, 63, 72, 84, 96, 112, 128, 144, 160, 180, 200, 225. The sizes 41, 45, 54 and 63 are largely used for exhibition purposes, although a few boxes of these sizes are required to be packed for the larger growing varieties. In packing the size 41 start by placing the first two apples



An "Appco Shipsafe" to hold six dozen apples

in the bottom corners of the end nearest the packer, placing a single apple in the crotch or pocket left between the two before placed. Now place an apple in each of the two crotches formed by the apple last placed and the sides of the box, and so continue until the last two apples have been firmly wedged against the end of the box away from the packer. Start the second layer by placing an apple in the pocket formed by the three first apples in the first layer at the end of the box nearest the packer and then follow with two apples, one in each of the center pockets formed by the two apples of the first layer, the one just placed in the second layer and the sides of the box. Continue this layer, ending with a single apple at the end of the box farthest from the packer in the same relative position as that of the first apple in the second layer of the box. The last layer will begin and end with two apples at each end and will really mean an apple in each of the four upper corners of the box. The 41 size of pack will always come on edge or cheek.

Size 45 in the standard, 64 and 63 in the special are considered among the straight packs and consists of three layers deep, three apples wide and vary nine apples each in contents. Occasionally one row of apples at end of each of the two layers in the 45 and 54 sizes require to be turned flat in order to keep the apples from being too high at the end and sufficiently snug in length. Further explanation of these packs is surely unnecessary.

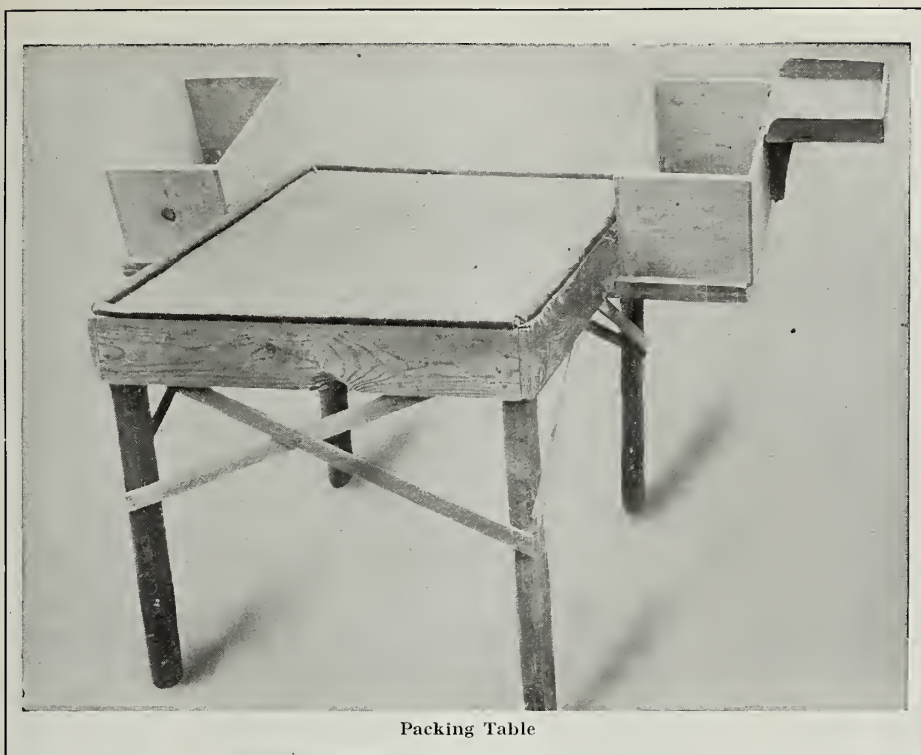


Ready to close

Closed and sealed with grower's label



Picking Buckets



Packing Table

Sizes 72 and 84 are the sizes in this system of packing from which the name "offset" was taken. Start the first layer of these two sizes with three apples of the same size firmly together, cheek to cheek, with the stem or blossom toward the head of the box, with the first of the three in this row firmly against the left hand side of the box. Each of the other apples in the row directly against the cheek of the one next in the same row, leaving all the space in the same row between the last of these apples and the right-hand side of the box; in the pocket thus formed place the first apple of the three constituting the second row, leaving the alternate space on the left-hand side of the box. Continue each of the rows in the same manner, alternating the space first on the right-hand side and then on the left-hand side until the last row is forced into this relative position, sufficiently tight to key the whole layer. Start the second layer by placing the first apple of the first row in the pocket formed by the space in the first row of the first layer. Place the next two apples of the first row of the second layer cheek to cheek against each of the others, leaving a space on the left-hand side of the box, alternating each space and row from this first space and row in the second layer until the second layer is completed. Continue each of the two following layers in the same manner until the pack is finished. In no case, in an offset size, lay one apple directly over another; always place the apples so that they will come over the pockets or semi-pockets which are formed by two or three apples, and possibly one side of the box.

The 72 size nearly always packs best for length and height flat, unless the apple is very flat, when it will more than likely pack as an 84, all on edge or cheek. The 84 usually packs on edge,

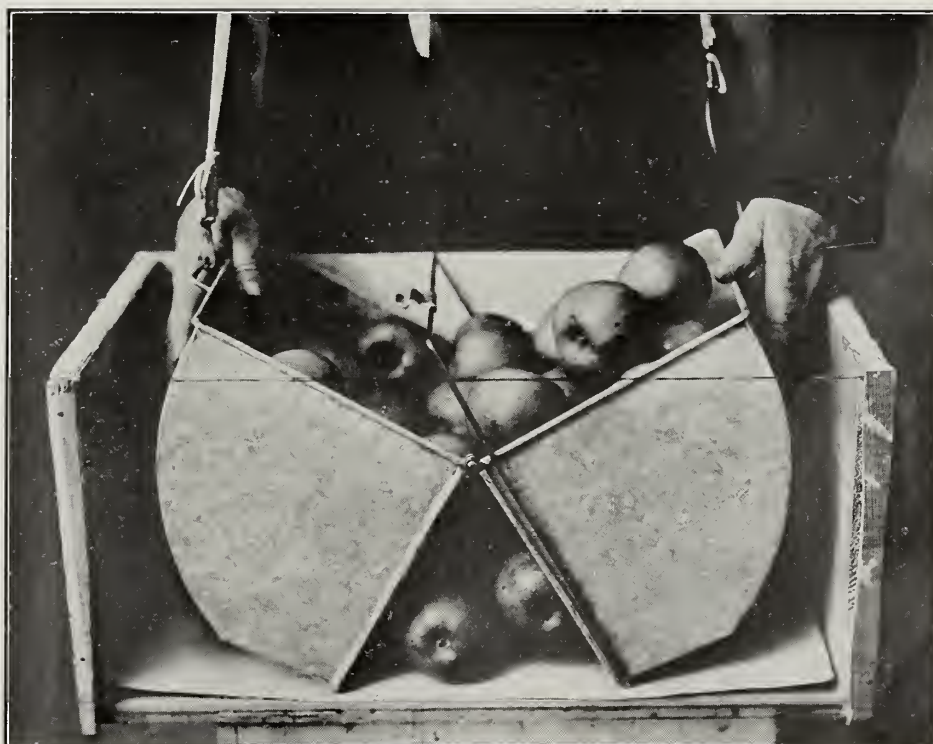
except with occasional one or two rows on one end of each layer, which may require to be turned to make length in the layer and proper height in the end. In turning these rows alternate, turning the last one or two rows in the first and third layers at the end farthest from the packer, and in the first one or two rows in the second and fourth layers at the end nearest to the packer. The 96 and 144 sizes, almost without exception, pack on edge or cheek, are four apples wide, fitting the box snugly with absolutely no pocket or space next the side boards and none at the end.

It is four layers deep and occasionally, with very flat apples, the 96 size is packed as an offset pack all on cheek. The 112 size was pretty thoroughly discussed in the writer's former article, and on referring to it a full description may be had. Sizes 160 and 180 are offset packs and are packed in the same manner as 72 and 84, except that there are four apples to each row and five layers to the box. Sizes 200 and 225 are straight packs, as 112, 128 and 144, and the same general plan is followed in their packing. Size 200 and 225 are five apples to each row and five layers deep.

The same general rules are given in the description of the diagonal pack in the article last season and should be studied, together with the diagrams and descriptions herein given. Sizes 41, 45, 72, 84, 96, 112, 160, 180, 200 and 225 are packed in Northwest standard boxes; sizes 54, 63, 128 and 144 are packed in Northwest special boxes.

[Editor's Note—All of the illustrations, Figures 1 to 37 inclusive, were made by Roy C. Broek by hand, and are the best set of illustrations ever produced, illustrating every pack from 41 apples to the box to 225 apples to the box, with the exception of two five-layer packs which are not yet in general use.]

Almost the whole world knows of Hood River as a place that produces the best fruits, and all of Hood River Valley should know, and could know, that there is one place in Hood River, under the firm name of R. B. Bragg & Co., where the people can depend on getting most reliable dry goods, clothing, shoes and groceries at the most reasonable prices that are possible. Try it.



A Good Picking Bucket



International Apple Shippers' Association Eighteenth Annual Convention in Session, Sherman Hotel, Chicago, Illinois, August 7, 8 and 9, 1912

The Fruit Business of the Northwest

E. H. Shepard, Editor "Better Fruit," before Washington State Horticultural Society

IT always affords me great pleasure to attend a Washington State horticultural meeting on account of the immense amount of valuable information that is disseminated; on account of the intense interest that is taken in the meetings by your people; on account of the large attendance and on account of the welcome that I always receive. You know that it takes experience and ability to attain proficiency in almost anything. I regret that I have not had the opportunity to attain proficiency in speech making and oratory. Some of you men who are married will realize why I have never had very much of an opportunity to get a chance to talk. Then there is another reason why I never attained the accomplishment to talk. I explained it once in a short story at Spokane; a few of you are here who heard it there and to others it may be still older. Mr. Smith said that he loved to talk; that he always talked and let the other fellow do the work. I admire Mr. Smith's ability and his greatness and his smartness in that capacity. I wish I had it; unfortunately I have not. I have had to work for a living all my life. Some short time ago I said to a man that I had worked hard for the last fifty-four years. He looked at me and he said, "What were you doing in the way of working fifty-four years ago?" I said, "My friend, I was milking for my living and my board and lodging."

Now it almost seems impossible for me to deliver anything in the way of an address after listening to the able, comprehensive and thorough papers that have been read at this meeting, for they have vitally covered every subject, almost, pertaining to the fruit industry. What hasn't been covered by those addresses has been brought out in the discussion. However, there are a few things that I would like to speak of. I want to say that I realize that all of you are getting restless; you are getting tired because these sessions have been long and intensely interesting. Therefore my remarks will be very brief.

First, I desire to speak in reference to varieties. We have in the Northwest been tending strictly toward specialties. I have heard some say they would only plant one variety of apples, others two, others three and many not over four. I have an orchard of forty acres at home. If I were to plant it over I would change it. Some of you know where my home is and perhaps some of you do not. A short time ago I picked up a magazine and read an article that appeared in it. It related to a conversation between a couple of men on a train who were fruit men, and one man said, "Where is this Hood River district—this Hood River country that I have heard some talk about?" "Oh," says the other fellow, "that is a little hole in the ground out near the Pacific ocean somewhere." Another

man came into my office and asked me about a number of different fruit sections throughout the Northwest. There are many good fruit sections, too numerous to count on several pairs of hands. Each perhaps produces some specialties that are better than others. In speaking of these different sections my language was such that he rightly inferred that they were all good fruit-producing countries. Finally he said, "My friend, all of these fruit sections claim they are 'it'; you speak highly of them all; what is the difference between Hood River and the other sections?" I replied by saying, "I have given that matter a great deal of thought; each has its specialties and each has its advantages; therefore people like the district they live in because they are happy and contented and prosperous in that district." And after a great deal of study I have come to the conclusion that about the only difference between Hood River and the other fruit districts in the Northwest is that the Hood River fruitgrowers are a little bit bigger liars than the rest of them.

Now about varieties, which I have deviated from. We know that one variety will bear well one year and it may not bear well the next year. All varieties do not go off in the same year. This year, while the crop of Spitzenbergs or the crop of Newtowns was very light in my own orchard, the crop of Red Cheek Pippins was very heavy.



E. L. Richardson
Manager of Calgary Exhibition
Calgary, Alberta

That is one of the reasons why I would suggest for consideration that a man do not confine himself to too limited a number. We know that the trade is particular; the people want what is scarce. What might be scarce in one district might not be scarce in another district. The prices of apples vary. The price of Spitzenbergs may be high one year and low another year; the price for Ben Davis low one year and very high the following year. By planting a certain number of varieties, but not too many, it will even up the income on the orchard during the year. In this is also involved the labor problem. I have heard it said here that a crop could be marketed quicker or handier if of one variety, and at less expense than if you had several varieties. Gentlemen, that probably is true, but would that crop be handled so



J. W. McNicol
Manager Southern Alberta Exhibition
Lethbridge, Alberta

well? If a man has several varieties of fruits he can start in with a crew, and that crew becomes educated, and he can add to it as the other varieties come on in their period of maturity, and he can have an experienced crew working there a longer season, which will put out a product in more perfect condition, with less bruising from rough handling; and again, gentlemen, it is easier to obtain twenty men for two months' employment than it is to obtain twenty men for fifteen days' employment. Therefore, in my own district, if I were planting today I believe, without any doubt, that I would plant Graventeins, Jonathans, Ortleys, Spitzenbergs, Newtowns and Ben Davis, extending the period of picking and harvesting from about August 15 until November or December 1.

I would like to say a few words about distribution, one of the most important problems connected with the marketing of our fruits—one that we least understand. We have reached, it is true, the large cities. As you all know, we pounded them heavy last year, particularly the centers—Chicago and New York. There are hundreds and thousands of cities where our fruit has not yet ever been tasted. I will relate specifically a case to emphasize what I mean. A man came to the Northwest and bought an orchard, and in January returned to his little village of about 5,000 people, I think—a town called Neenah, in Wisconsin. He had purchased an orchard out here and naturally he took pride in having some apples tasted in his own town, so he stopped at South Water Street, Chicago, and bought forty boxes of apples and ordered them shipped and billed to his groceryman. And when he went in to see him the groceryman said, "My goodness, doctor, what in the world did you ever order those apples shipped and billed to me for? I can't take them; I won't take them; I have been in the business selling fruit for thirty years in Michigan, one of the greatest fruit states in the country; the people don't want that Northwestern fruit in boxes, they want barrels; you are a dentist, I am a business man, a grocer and a fruit dealer, and I know what the people want." The doctor replied to the grocer: "John, place a half dozen of those boxes of apples in a corner window, put as fair a retail profit price on them as you want and at the end of the week I will call at your office and let you keep your profit on what you have sold, and what you have not sold I will be pleased to take back and pay you for at the cost price laid down and I will give them to my friends." Those were the first boxed apples that went into that town, this doctor told me, and the groceryman put in three orders afterward of his own accord. Now the small markets—when I first took charge of the fruitgrowers' union we didn't cover the small markets locally. It was a great thing to ship strawberries clear to Minnesota, but the express business at home, those smaller lots, of course, paid us a good



John T. Burns
Secretary-Treasurer and Manager International
Dry Farming Congress, Lethbridge,
Alberta, October 21-26, 1912

profit and without any loss in condition on arrival. By working those small markets from the desk alone, by correspondence, I doubled the amount that went out by express, and the following year I sent a man into the territory to cover the towns under ten thousand and I covered those that were over ten thousand myself, and again doubled the amount that went out by express to the small towns. That shows you very positively what can be done by working the small towns, which I think I am safe in saying has not been done up to the present time. Even with the crop in Iowa this year, when it lay rotting on the ground with a wonderful crop in Boone County, apples were sold from the Northwest at two dollars f.o.b. shipping station. By that I wish to convey this fact, that even though they



W. J. Stark
Manager of the Edmonton Exhibition
Edmonton, Alberta



George Sangston
Manager of the Victoria Exhibition
Victoria, British Columbia

have large crops in the East, there has been, there is and there will be a demand for our fruit.

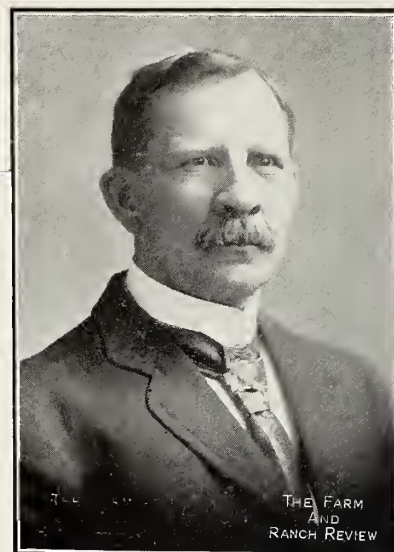
However, we don't want to be specialists to too great an extent, because we have in the Northwest a country of diversified farming. In our enthusiasm over fruits we are overlooking many of the opportunities for dairying, for hog raising, for raising beef cattle and other general lines of farming. Mr. R. B. Miller, the general traffic manager of the O.-W. R. & N., issued a booklet on this subject; the publicity department of Portland is issuing booklets on each particular phase of farming. It is good to attract Eastern people to our country, because we want capital and we want labor. The fruit business does not appeal to every man. To the man who was raised a dairyman a dairy project is a more inviting proposition. So, therefore, although there is nothing better or nothing as good that I know of in the way of a paying business and

a pleasant business in the rural communities as fruit growing, let us work in harmony throughout the Northwest to attract people to our country for all lines of farming.

I want to say a few words about judicious planting. It might possibly be called "over-planting," but I don't like to use the word. We all know that trees are being planted throughout the entire Northwest on land that is not suitable for orchards. That should be discouraged by every man who is in the fruit business, because when an orchard proves a failure it only serves to depress the financial values of our property.

A few words about over-production. I don't know of any continued over-production of any food commodity. I do know from statistics furnished by reliable authority that in the last fifty years while the population has increased 40 per cent the consumption of fruit has increased 250 per cent.

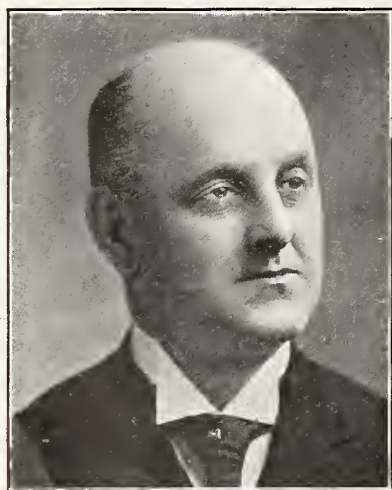
Now a word about the apple over-production business in particular. In 1900, according to the government census, and I won't give you many statistics, there were something like two hundred million apple trees planted in this country. In one state alone there were twenty-four million, and that was New York, which produces the greatest quantity of apples of any one state. From the year 1900 to the present time, according to government statistics, again, the average bearing per tree has varied from seven-eighths of a bushel to about one-fourth of a bushel. The conclusion must be evident to the thinking mind that the apple industry all over the United States is not a paying business. In other words, any state which, as a state, produces only one-tenth of a bushel to the tree is losing money at the business as a state. Nevertheless it may be true that there may be some small sections in that state where the business does pay. In Missouri there are, or were, twenty-four million trees. I don't know what the crop has been this year, but the crop was reported late in the season as 344,000 barrels, which would be one million bushels, or about one-twentieth of a bushel to the tree. As you all know, the crops are uncertain throughout all the Middle West States, and if it is true that the average crop is from one-fourth to seven-eighths of a bushel for a period of ten years it must be evident that a large area must go out of the business, and eventually will to a very great extent. If that is the case those districts that can produce five, six, eight, ten and twenty bushels to the tree will stay in the business and take care of the supply that is now raised in districts where the business does not pay. A man will stay with a business proposition a long time before he will quit, but when he becomes convinced that he cannot make that business pay he will either quit it voluntarily or be forced to quit it. I know of a man, to illustrate this specific case, who had a good-sized peach orchard which grew to be ten years of age without ever



W. I. Smale
Manager of Exhibition, Brandon, Manitoba

producing a paying crop. This man quit the peach business because he became convinced that in that valley peach growing was not a paying business. So it will be with a large area in the Middle West; they will go out of the fruit business and that large area, although it produces perhaps a small average per tree, with the immense number of trees planted, when they do bear produces an immense crop.

The Boys and Girls in Our Fruit Industry.—I have made quite a number of exhibits at various shows in a small way, and this year I was asked to make a display at home. I was very busy and unable to get up a display that I would be satisfied with. I have one little girl, who is nine years old, and I told the foreman to show her how to pack and teach her as well as he could. That little girl, but nine years old, put five boxes of apples—she packed for the union, her pack passed inspection and



A. W. Bell
Manager of the Winnipeg Exhibition
Winnipeg, Manitoba



D. E. McKenzie
Manager of the Westminster Exhibition
New Westminster, British Columbia

she put up five boxes which I take pride in saying, and there are some in the audience that saw them—which compared favorably with the prize-winning boxes. She took first prize for Red Cheeked Pippins in the large show in Hood River and she took the first prize for the best box of Red Cheeked Pippins in the Portland apple show. I speak of that but for one purpose, and that is to forcibly illustrate the fact that our children can be taught to do this packing, which is the most delicate work of all, and our own children will be interested in the business, and therefore will do it more carefully than the hobo help that we will have to pick up when our larger acreage comes into bearing. Another thing, don't encourage men to go into the fruit business and buy a tract of land and set out an orchard, or to buy an orchard that is one year old, unless you feel that those men have the ability or the finances to see that proposition through, because if you do you create discontent, you cause failures, and those failures affect the fruit industry in our country and weaken our land values.

Very little has been said upon the economic side of the fruit business. It is so near the noon hour and I know you are all so tired that I won't go into it deeply, but that is one of the important problems that we must consider in the future. I have known it to cost ten and twelve cents a box to wipe Spitzenberg apples that had been left in the packing house several days. We must give our time and thought to invent appliances and conveniences so as to handle our crops at the very smallest possible expense. We must minimize expenses in every way. Those of you who have read the articles that have appeared in some of the papers and magazines like the *World's Work* and others know how, by studying the lay-



Practical demonstrations in apple packing are given at fruit fairs by the University of Idaho, in order to properly instruct the growers how to pack fancy fruit. The illustration shows how to start the different style packs.

ing of a brick, one man reduced, if I remember correctly, the motions of the bricklayer—the brick mason—who had worked at his business for years, for centuries, from eighteen to eight in laying a brick. We can do the same thing in our handling and picking of our fruit crops. We can do away with unnecessary handling and reduce the expense, and devise a machine to do some of these things, and that will cut down the cost of production. And let me add that ten or twenty cents a box saved is money right in your hands, but ten or twenty cents added on to a box sold in some distant land is not in your hand until you get it.

The Panama canal will undoubtedly be an important factor in the fruit industry. I have conversed with several railroad men who differ in their ideas of what the freight charges would be; they varied all the way from six to nine and twelve dollars per ton, which would mean fifteen, twenty and thirty cents per box instead of fifty cents, giving additional advantages in favor of the Northwest in the future by reducing our freight rates.

You have always been so courteous to me, and while I have only occupied the position of vice-president of the Horticultural Society of Oregon—elected because I was absent—I know that I am justified in assuming the authority in behalf of that society to extend a most cordial invitation to all of you people to participate in our meetings. Let me add that I never go to a horticultural meeting anywhere but what I always learn something, like the rest of you, and in addition to that I believe the more we attend each others' meetings the more harmony will prevail and the closer we will be to co-operation, which is another of the

problems in the future that must be taken care of. We are now going through a sort of evolution and development in that way. How soon more extensive co-operation will be accomplished is a matter that is under consideration, as you understand from the able address delivered by my esteemed friend, Mr. Otis.

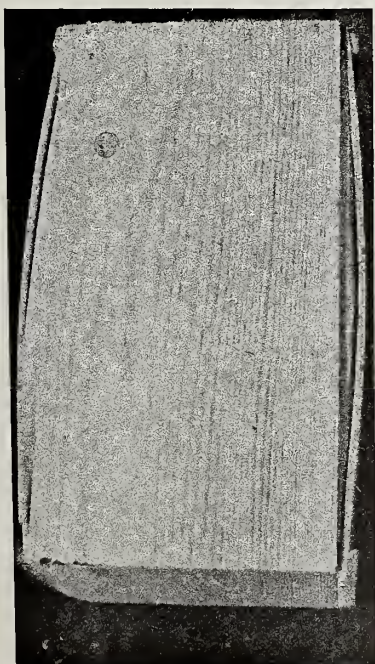
We live in the greatest country in the world, and in conclusion let me say—which, by the way, is not original—that if the Pilgrim Fathers had landed on the Pacific Coast instead of on the Atlantic Coast, today the Atlantic Coast and New England would probably still be a rock pile and a howling wilderness.

The highest types of apple in the world today are the Hood River Spitzenberg and Yellow Newtown Pippin; the highest type today to Hood River's cosmopolitan people of a life insurance policy is a Policy of the National Life Insurance Company of the United States of America, of Chicago.

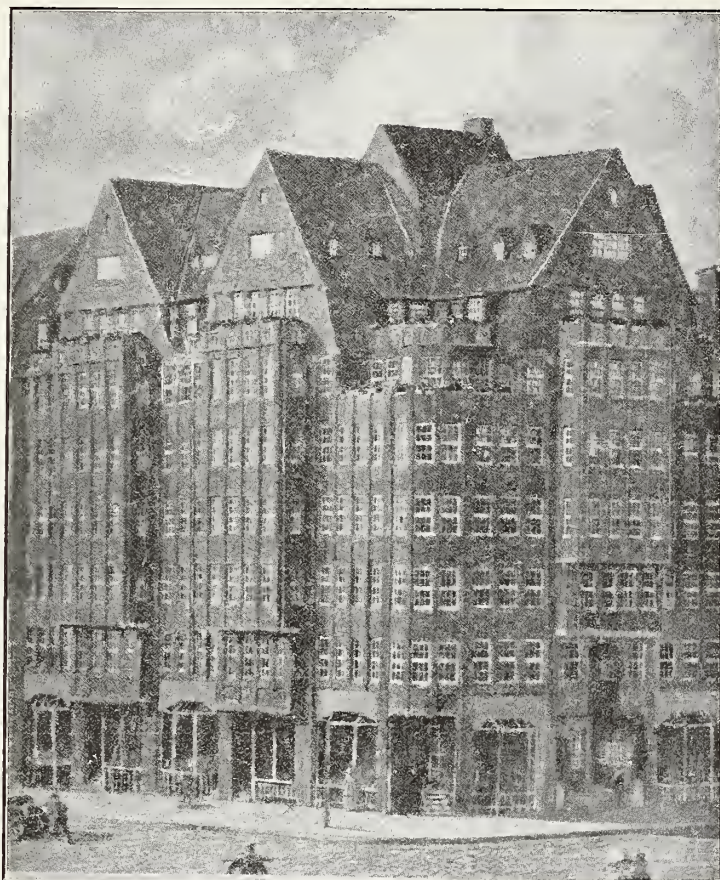
These Policies, which hundreds of your neighbors have, make superb Christmas presents, Happy New Year gifts, appropriate wedding presents, choice birthday reminders and unexcelled anniversary tokens.

Write for information to the Agent at Large, Dr. James H. Shults, Hood River, whom most of you know, quote "Better Fruit," and full and satisfactory information will be furnished and hurry orders will receive prompt attention by telegraph and special delivery letters.

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Picking, Packing and Packages

F. E. Thompson, North Yakima, before Washington State Horticultural Society

IT is an honor to be permitted to address this distinguished assemblage of fruitgrowers from all parts of this great commonwealth. We have in our midst some of the most progressive and able horticulturists of this and other states, men without a doubt able and competent to teach me for years to come the science of viticulture, therefore I ask your kind indulgence for a few moments. My experience as a fruitgrower in the Yakima Valley dates back to the year 1889, when the shipments of fruits would not total ten cars from the entire Yakima district. Having passed through the constructive days of fruit growing and shipping, being the first shipper to route a straight car of fruit to a point east of the Missouri River. Experience and observation has been my teacher, and I might add that some of my experience has been financially very disastrous at times. As our worthy president has left to my own choosing the title of this address, I have selected the subject, "Picking, Packing and Packages," and perhaps my line of discussion will be more from the view point of a shipper than that of a grower.

The production of good fruit begins with the early spring, care and intelligent consideration must be given the trees during all the stages of cultivation,

but as my line of thought is based on fruit ready to pick I will not discuss the operations of fruit growing. Picking of fruit sounds easy—it is easy with some people—but with the general fruit growing public it is a hard problem. The difficulty arises by not knowing the proper time to remove the fruit from the trees; this applies especially to peaches. A peach picked too green will arrive at its destination in a withered condition—a dead, sickly green color and absolutely unfit for consumption; and on the other hand, one picked too ripe will be just as worthless when subjected to a railway haul lasting over a period of ten or twelve days. For me to explain orally the exact time to harvest peaches for shipment would be impossible, and the only way this information could be imparted would be by the actual specimens of fruit, save apples and pears. With measure, to all other kinds of fruit save apples and pears. With apples when the color has thoroughly developed characteristic to the variety they are generally ready for harvesting. The average fruitgrower leaves his apples on the trees entirely too long; when this is done they lose their keeping qualities to a very great extent. Last fall the dealers in this valley had trouble galore in making deliveries of apples to the Eastern buyers on account

of being too ripe; and this excessive ripeness arose from too late picking. Bartlett and other summer pears are ready to pick as soon as they have attained the diameter of two and one-half inches. Shippers of pears experience great trouble in late deliveries by the growers; pears must not be allowed to hang on the trees till they take on the yellow cast, as it will mean disaster to someone.

Presuming the fruitgrower knows the exact stage to pick his fruit, the question of equipment arises. He needs ladders, buckets or baskets, a wagon equipped with good springs and a first-class foreman to take charge of the picking gang. The shifting of fruit from picking bucket to lug box is bad practice; the bucket in which the fruit is picked should and ought to go direct to the packing house and be packed direct from these picking buckets. If the fruit is graded ahead of the packers then be graded directly from the picking buckets. Stay away from innumerable handling—don't pour fruit from picking bucket to orchard boxes. Every time fruit is transferred great damage results from the operation. You will have skin punctures and bruised fruit, and to pack a specimen of fruit with a broken skin means rotten fruit in a very few days.

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Before an extra quality of fruit can be packed the element of grading enters into the game to a very great degree. In peaches my suggestion would be not over two grades be made, a "fancy" and a "choice," and quoting in part from grades and rules adopted by the Yakima Valley Fruit Shippers' Association we have the following for peaches: Fancy—All fruit shall be free from worms, scale, disease, blemishes, split pits and picking bruises. Sound, firm, smooth, true to name and well colored, according to variety. Choice—All fruit in this grade shall be in as perfect condition as the fancy grade with the exception of color. Each grade and count shall be of uniform size; each peach neatly wrapped in paper and boxes tightly and carefully packed, suitable for long distance shipping. Use diagonal pack; sides to be solid. The number of peaches, variety and grade shall be plainly stamped on end of each box by grower. No Elberta peaches of greater count than 80 to the box will be received, and no variety with more than 90 to the box shall be accepted, except Alexanders and Hale's Early for nearby express shipments. Use Washington standard peach box of appropriate size. In making, use fourpenny cement-coated nails to each side, twelve threepenny cement-coated nails for bottom, eight fourpenny cement-coated nails for top, nailing through cleats only. Use no cleats on bottom. Be careful in nailing that no points protrude. Prunes and plums should be packed in four-basket crates, 3-tier to each basket; fruit must be sound, firm and free from scale or other insect pests, scab or rust, stems intact near as possible and no fruit packed smaller than 6x6 in each tier; this means 36 specimens of fruit to the layer and the packed crate should weigh not less than 27 pounds. By all means use the diamond system of packing. The packing rules for apricots are in a very great measure the same as prunes and plums. In packing pears two grades should be made, a "fancy" and "choice," and quoting again from the Yakima Valley Fruit Shippers' Association grades and rules we have the following: Fancy—Bartlett, Buerre d'Anjou, Comice, Flemish Beauty, Clapp's Favorite, Buerre Clairgeau, Fall Butter and kindred

varieties shall be no smaller than 2½ inches in diameter. Winter Nelis pears must be no smaller than 1¾ inches in diameter. All pears must be packed in Washington standard boxes, not to weigh less than 52 pounds per box gross. All fruit must be free from worms, worm stings, scale, picking bruises, blemishes; free from evidence of rough handling, scab or deformity of any character whatever. Choice—All fruit shall be sound, free of worms, worm stings, scale and disease. Slightly misshapen pears or those having limb rub or other like defect may be included. No fruit less than 2¼ inches shall be accepted. In fact stock in this grade must be only a little below fancy. Name of variety, grade and tier shall be plainly stamped on end of each box by grower; variety in upper left-hand corner and tier in upper right-hand corner, close to top. In making boxes, use eight fivepenny cement-coated nails on each side, eight sixpenny on bottom and top, nailing through cleats only. There could be made with propriety a special pack of pears for the New York and other Eastern markets, known as "extra fancy." In this pack nothing but the very finest fruits should be used, and my experience as a shipper has been that it pays to pack this grade, and more especially the Bartlett and d'Anjou varieties.

We will now discuss the important question of packing apples. Every grower, as before suggested, should be provided with buckets, lugs or other receptacles for the proper handling of the fruit while undergoing the process of picking; do not in any event use the boxes that the apples are to be packed in for picking purposes. A soiled box hurts the sale of good fruit, as all packages should go on the market in a clean condition. Regarding the wiping of apples there has been more or less discussion; since the advent of the codling moth it has made spraying imperative, and during the process of spraying a deposit of lime is found on the fruit, and I question seriously the advisability of wiping the fruit. Nature has placed a bloom on this fruit for a purpose, and this bloom no doubt aids the apple in keeping quality. On the other hand, packers of fancy fruit can show good logic and offer reasons why

all spraying effects should be removed. We must all admit that an apple after wiping presents a better appearance than one that has not been thus treated.

The sorting of apples ahead of the packer seems to me to be the most important of all, and three grades are quite sufficient, and quoting for the last time from grades and rules adopted by the Yakima Valley Fruit Shippers' Association we have the following: Extra Fancy Export—Fruit shall be no smaller than 2½ inches in diameter, of good, natural, matured color, free from discolorations, and shall be absolutely free of worms, worm stings, scale, scab, limb rub, water core, sun damage, picking bruises or any defects whatever. Stemless fruit, skin punctures or any evidence of rough handling shall be considered defects. All spraying effects must be removed. Red varieties must be red all over, of good shape and form, characteristic of the variety. Fancy—All fruit of this grade shall be free of worms, scale, scab, stings, bruises, water core or any evidence of rough handling, with stems intact and characteristic of the variety; shall be smooth and firm. Varieties in this grade, with the exception of Winesaps and Missouri Pippins, shall be no smaller than 4½-tier, and no box shall contain more than 165 apples; Winesaps, Missouri Pippins, Geniton and Jonathans will be accepted as small as 5-tier if red all over. Each specimen of Winesap, Jonathan, Arkansas Black, Gano, Lawver or Delaware Red must

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represent 75 per cent true color. The following varieties, Ben Davis, Rome Beauty, Baldwin, Wagner, York Imperial, Northern Spy, Walbridge, Geniton, Mammoth Black Twig, Blue Pearmain, Hubbardstown, Hyde's King, King of Tompkins, Rambo, Ruby, Senator, Snow or other red varieties will be accepted 50 per cent red. Red Cheek Pippin must show a red cheek. Choice—All fruit in this grade shall be free of worms, scale, scab and bruises, sound and true to name. No smaller than 4½-tier pack will be accepted, except that Winesaps, Missouri Pippins, Genitons and Jonathans may be accepted as small as 5-tier. Name of variety, grade and tier or count of each box of apples shall be plainly stamped on end by grower; variety upper left-hand and tier in upper right-hand corner, close to top. All export and fancy varieties to be wrapped in Duplex paper unless otherwise specified. Bulge of boxes should not be more than 1½ inch nor less than inch, including both top and bottom. Use Washington standard apple boxes. In the making use eight fivopenny cement-coated nails on each side, eight sixpenny to the top and same number on bottom. Use four cleats to each box and nail through cleats only.

These grading rules adopted by the Yakima Valley do not disagree materially with the grading rules adopted by Hood River and Wenatchee, and it resolves itself into two words, namely, perfect fruit. I want to take exception to the light and frivolous manner in which the growers of the Yakima Valley treat the words "extra fancy." We had during the last season thousands of boxes of apples of different varieties come into our warehouse marked "extra fancy," and in a majority of cases they were a straight orchard run pack. In varieties like

Ben Davis, Baldwin, Mammoth Black Twig and other kindred varieties we would find apples with a red cheek not larger than a fifty-cent piece, but the grower did not overlook his "extra fancy" stamp. He had the idea that the word Yakima and extra fancy were all that was necessary. Without wishing the apple growers any ill luck, my wish is this, that every grower of apples would be compelled to change his occupation to that of a dealer for a period of two years, and the chances are that thereafter he would be a better grower. The growers of the Yakima Valley are falling behind our neighbors of Hood River and Wenatchee in the matter of packing apples. This is an admission I dislike to make, but it is a fact nevertheless. We have the fruit but we are shy of growers who know and have the conviction to put up a first-class pack. Regarding the different sizes, they should be confined to three, namely, 3½, 4 and 4½-tier, with a possible exception of one or two varieties which could be packed 5-tier. In the 3½-tier pack we have four different counts, in the 4-tier six different counts and the 4½-tier three separate counts.

The planting of apple orchards is going on at a very rapid rate and it behooves the Northwest apple grower to lay a proper foundation for quality, intrench himself in the markets of the world, fortify himself against competition, and when competition does come he will have established himself and his position will be unique, but the words Yakima and "extra fancy" on his boxes will not be sufficient, and he must have perfect fruit and well packed. Our present style of fruit packages seems to be all that is desired, but the time has come when the apple growers of the Northwestern States

must resort to barrels. This question is an economic one. It is not a matter whether we want to or not; we are going to be forced into it. Good authorities agree that the output of apples for the State of Washington for the year of 1920 will be 80,000 cars, that of Oregon 30,000 cars, Idaho 30,000 cars, Montana 10,000 cars, making a grand total of 150,000 cars for these four states. Reducing this estimate to boxes we will have the grand total of 94,500,000, and taking the estimate of 22½ cents per box for packing, it will cost the enormous sum of over \$20,000,000 to place this fruit in boxes from these four states, not including the cost of picking and grading; and remember, nearly all of this grand expenditure must be made within sixty days, and I firmly believe a lot of expense and time can be saved by resorting to barrels. Figuring upon the basis of 22½ cents per box for packing apples after they have been picked and graded, it requires three and one-fourth boxes to make one standard barrel; this equals 73 cents. Now, taking the cost of a coopered barrel of 30 cents, add to this 2½ cents for placing the first layer in the barrel and 2½ cents for putting in the head; this makes the package cost 35 cents. The difference between this and the same amount of apples packed in boxes is 38 cents; or, in other words, a grower can pack 146 pounds of apples just thirty-eight cents cheaper in barrels than he could in boxes. We estimate that the Yakima Valley will have in the year 1920 forty thousand cars of apples; reducing this to boxes we have \$25,200,000, and there could be a saving made of over \$3,000,000 by placing these apples in barrels instead of boxes.

Allow me to qualify some of the above assertions. Not by any manner of means would it be advisable to pack all of our apples in barrels. The Western box has come to stay; it is known in the markets of the world, it has a place there and it will not be displaced, but the bulk of this fruit, and at least 75 per cent of it, must go into barrels. The labor problem, if nothing else, will put it there. Anyone conversant with Eastern apple markets will agree with me that the price on Eastern barreled apples has been as high as a like variety from the West packed in boxes; not, of course, including some of our extra fancy pack of high-grade apples. Allow me to quote part of a letter received from Mr. Rankin of Minneapolis, who bought 60 cars of Yakima apples the past season, which reads as follows: "Among the Yakima apples that we bought there were 134 boxes of King of Tompkins which met with slow sale and could

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not get the dealers interested, so I went out and secured barrels and repacked these apples in them; it took three and one-fifth boxes to make one barrel, and after barreling them we had no trouble in selling immediately at \$5.50 per barrel."

Our apple market in the future must come from the middle classes, and the cheaper we can lay down good fruit the greater the consumption; and if we can make a saving in harvesting expenses so much the better. The grower can get the market price for the fruit in bulk; the consumer pays this price plus the cost of the barrel, the freight charges and the middlemen's profit. I have been advised by different New York dealers that it is not uncommon to see apples hanging on the trees in the morning and at

night loaded in cars and on the way to market, but with our present box system apples set around in boxes awaiting packers, consequently losing to a very great extent the keeping qualities apples should have. It is fair to presume that the Panama canal will be completed in the year 1914, and when this is a reality we will undoubtedly be able to ship a box of apples to Europe for the sum of thirty-five cents, a barrel for about one dollar, and with the enormous producing ability that our apple orchards have, the superior fruit that the trees produce, and being contiguous to seacoast, places the Northwestern States in a position to absolutely defy the world, and my prediction is that good apple orchards, well located and of good varieties, will enhance in value as the years roll by.

A New Style Apple Box

By Alexander C. Biggs, Burlington, Ontario, Canada

AS we have been using an apple box for several years with very good success and of an entirely different construction than those in general use I thought perhaps it might interest your readers to know something about them. Some years ago when that good, sensible idea of packing apples in boxes was introduced and encouraged in this country the writer was very much impressed with the many good points in its favor, and immediately adopted the plan of packing No. 1 quality in this package and the No. 2 quality in barrels.

After a few seasons' use I found that we had considerable breakage in these boxes through the handling of them in transportation, and as a consequence, loss en route. This was caused partially by imperfect end boards and the outward pressure from the bulge, and also the rough handling to which they are subjected in forwarding; thus the suggestion came to improve the package, and this we have done in a very simple manner, which I shall explain, but before doing so I will say that the inside measurement of our box is 11 inches wide, 10 inches deep and 20 inches long, and contains a government standard bushel. The change of the

construction relates chiefly to the ends of the boxes, which instead of being the ordinary size, we make them 11x12 inches, the grain running lengthwise and quite opposite to the ordinary box. We nail our sides, which are 11½ inches wide, lengthwise on the ends, allowing them to project one-quarter inch beyond the sides; these should be nailed firmly with at least six or seven stout box nails (1¼-inch coated) at each corner. The tops and bottoms are the same, practically the same size as the inside measurement of the box, 11x20 inches, but we make them about one-eighth inch shorter and narrower, so that they will drop inside the four walls easily. (I am speaking now of seasoned stock.) The cleats are ½x¾x10½ inches and we nail one of these on each end board, across the grain of the wood, before nailing on the sides, so that when you have nailed your sides your box is ready for packing, with the exception of dropping in your top or bottom, which will rest on the cleats; these we do not nail, as the fruit in the package holds them firm on the inside and the cleats on the outside, thus allowing perfect freedom for the bulge and also contraction as required by the shrinking of the fruit. The packing of the fruit is proceeded with just the same as in any ordinary box with this exception, that the ordinary box requires very exact packing, while in this package one-quarter inch may be permitted without any doubt of a tight pack, for the simple reason that the cover is within the four walls of the box and is applied and pressed direct to the fruit, using a corrugated cap between, and when the press is on the two remaining cleats are nailed across the ends either on the one-half inch or five-eighths inch side, as the fruit may require; this box is then complete.

The utility points of this package are as follows: **Strength and Durability**—This is perhaps the chief requirement in any fruit package, and will necessitate one to be sufficiently strong to withstand the rough handling to which

they are usually subjected in the course of transportation. This apple case has been thoroughly tested, and upon examination of its firm and simple construction it will readily be conceded to have the strength and durability that will stand the strain or test. **Protection of Bulges**—To all growers and packers accustomed to the usual box for shipping their first-class fruit the protection of this bulging portion of package is highly important, for the simple reason that no matter how carefully the fruit may be packed or how snugly the case may be put together unless this part be protected from the



The Biggs Apple Box—Side View

weight of the other packages when piled during transportation the fruit inside will be more or less bruised and destroyed. This bulge is securely protected in our package. **Protection of Cleats**—The cleats used on this case, which are nailed across the ends at right angles, thus securely preventing the ends from splitting, are placed inside and below the projecting ends, which effectually protects them from displacement and thus insures the safety of the package during transportation. **Safety in Handling**—The protections of the ends afford excellent handles for the purpose of removing, piling, etc., during transportation, and is commendable in itself as a protection against breakages by handling. **Ease of Access**—One small cleat removed and the package is open for inspection, and the cover is as easily replaced without breakage. **Ventilation**—The projection of the ends prevents close piling in either car or steamship, thus affording ample ventilation during transportation. **Adaptability of the Package to the Fruit**—By the adjustment of the cleats in their respective positions the operator, when placing on the cover, is enabled to pack to the fruit, as the cover fits in between the four walls of the package, and when pressed and held in place by cleats secures the fruit very firm, and consequently does not depend upon exact packing for a snug box. The package is not patented and therefore can be used by anyone, and we herewith give dimensions of stock:

	Width inches	Length inches	Thickness inches
Ends	11	12	¾
Sides	11½	21¾	¾
Tops and bottoms	10¾	19¾	1¼
Cleats	5/8	10½	1/2



The Biggs Apple Box—End View

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E. H. SHEPARD

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Canada and foreign, including postage, \$1.50

ADVERTISING RATES ON APPLICATION

Entered as second-class matter December 27, 1906, at the Postoffice at Hood River, Oregon, under Act of Congress of March 3, 1879.

Marketing the Apple Crop of 1912.—

It has been truthfully stated that marketing the apple crop is a different problem each year. This is a matter of history. It may be said that marketing this year's apple crop, in the Northwest in particular, at the present time is strikingly different from any year in past history. It is apparent that growers consider it a problem, and all have not agreed, consequently many plans are being tried out, some of which are new and some theoretical. It remains to be seen how successful each one will be found to be by practical experience.

More plans are being tried this year than ever before. Some independent growers will market their crops independently by selling or consigning direct to individual firms. The association idea continues to be an important factor in all of the large fruit districts of the Northwest, but the methods adopted by these associations in marketing will differ greatly. A number of associations will market through the Northwestern Fruit Exchange. One large association will adopt an original plan of marketing through one large dealer in many of the important cities, who will handle this association's apples exclusively, so we have been informed. The object of this plan, apparently, is to create a wider distribution with a minimum expense in selling and to obtain the best possible results. Another association in another district will market its output of apples

through a large Eastern fruit company with offices in many cities. The private shipping firms in different districts that have been in business many years, which are well known to the trade, will market their apples, doing business direct with fruit dealers or commission merchants, in many cities in methods similar to former years. Some of the associations in large districts will continue to do business this year similar to the methods pursued in past years, by placing fruit direct with large dealers throughout the East, and placing fruit in other large cities and territories through brokers. Such business must necessarily be done in one of three ways—by selling f.o.b., on a guaranteed advance, or consignment. Another new feature this year is the formation of apple companies. Of this class there are two styles, one of which might be called a limited apple company, which will handle apples for stockholders and others who are not stockholders who wish to market through them. Another apple company plan is composed of a limited number of apple growers who will handle the output of their own stockholders exclusively. The latter two classes, inasmuch as they are composed of apple growers exclusively, might be called "associations," as their plan of operation is similar to an association. The first might be called a "limited association" and the other a "closed association."

About two years ago a movement was started for one central selling agency for the entire Northwest. At that time in each of the large districts there were only one or two associations. The tendency during the year 1912, instead of being toward a condensation, seems to have been rather the reverse, consequently in many districts there are now several associations. How long this will continue or whether the number of shipping concerns in the prominent fruit districts of the Northwest will continue to increase or decrease remains to be seen. However, it must be evident to the fruitgrower and everyone engaged in the fruit industry, either directly or indirectly, that where a district is split up into a number of shipping concerns it will mean that marketing will be done at an increased cost on account of the many expenses that must necessarily be duplicated. For instance, if there are several associations and firms doing business in one district each executive will command a good salary. This will mean that several salaries would have to be paid and many expenses, such as stenographers, telegrams, correspondence and other items too numerous to mention, would be duplicated several times, which on a large output would amount to many thousands of dollars. It must be evident to the thinking mind that all these extra expenses must come out of the fruitgrower's pocket. If instead of all this duplication of expenses there could be a reasonable condensation an immense saving could be made. If the money saved in this way could be spent in employing representatives to visit

the East for the purpose of assisting in selling the apple crop, creating a wider distribution and inspecting cars that might be rejected and adjusting the differences in a way that is fair to the dealer and shipper, that money would not be wasted, but would bring results that are worth while. Good representatives could also do much in the way of giving publicity to the apple, studying the situation and learning the best methods that could be pursued to increase consumption. Fruit dealers in the East are giving much attention to the matter of creating a wider distribution and greater consumption. The apple is a wholesome fruit. Every physician knows this. One fruit dealer puts forth the slogan, "Health's best way—Eat apples every day." It is a good idea. Physicians recommend apples as being wholesome for everyone, particularly valuable to those who are engaged in sedentary occupations or office work. If the money wasted at home in duplicating expenses could be spent in educating the people along the lines here suggested it seems evident that we would soon have a wider distribution and increased consumption that would not only put extra money into the fruitgrower's pocket but confer a boon on mankind. Educating the people to eat more apples would add to the health of the human race.

During the year 1912 the climax seemed to have been reached which resulted in districts splitting up instead of getting together. Such is the condition at the present time. It is evident that the fruitgrowers identified with all of the different plans of marketing that will be in operation this year are determined to carry out their ideas, consequently we must accept the situation for the year 1912 as it is, and at the end of the year the fruitgrowers can draw conclusions. The success or failure of each of the many different plans this year will prove their value and the results will assist the fruitgrowers in shaping their policies for the year 1913. That more will be learned during the year 1912 about marketing the apple crop than has ever been learned in any previous year is a statement that probably will not be questioned. The conditions as they exist and the many plans of marketing that are in operation are the outcome of the many differences of opinion among the fruitgrowers in various districts. Many fruitgrowers in the various districts of the Northwest were not completely satisfied in one respect or another. Some felt better methods of marketing could be adopted; some felt that satisfactory prices had not been received; some lacked confidence; some felt that past methods could be improved. These and other causes are accountable for the many changes that have taken place in many of the different fruit districts in the great Northwest during the year 1912. Some attribute the change entirely to the causes already stated. These causes are partially accountable for the many divisions that have taken place in several of the large fruit sections of the



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Northwest, but in our opinion they are not the primary or basic causes. It is a well-known fact that the spirit of unrest, the spirit of discontent not only exists throughout all of America but in foreign countries. In our own country this feeling of unrest is very strongly shown up in the political situation of today. In France and Germany the same spirit of unrest has created socialism. In China the spirit of unrest has created a republic. This latter example is perhaps the most striking of the feeling of unrest that exists in any country. The Chinese Empire has existed for centuries. The Chinese have been the most tenacious in clinging to their form of government, their form of worship and habits of dress of any nation in the world. When China all of a sudden converts itself into a republic it is evident that in China there must have been something doing in the way of unrest. It is our opinion that the present discontent and unrest of the people has been the cause of many of the great changes that have been made and are taking place at the present time, and we believe that this same spirit of unrest is the primary or basic cause of the division that has occurred in many of the fruit districts and that local conditions in various districts were simply additional factors in producing the division and originating many plans with the hope of bettering the market problem.

It must be admitted that a greater number of marketing concerns or asso-

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ciations in a district means both a lack of co-operation and harmony. Some cities will be neglected and others glutted. On glutted markets the fruit-grower sometimes "pays the freight." One shipping concern for a fruit district is ideal, but the fruitgrower likes a comparison. The ideal is not frequently probable. One certainly feels justified in assuming that two shipping concerns in a district can work together better than half a dozen or more, eliminating a lot of self-competition, effecting a distribution that will supply all markets in accordance with the

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demand, a very important factor in securing a reasonable price and a fair profit both to the fruitgrower and dealer. Let us hope that this year we will gain much knowledge by experience. Let us hope we will find out the plans that are most successful, and after gaining this knowledge let us work to get the different factions together in each of the great fruit districts, so that our fruit can be marketed through one or two executives instead of several. Let us hope we will learn the folly of wasting money unnecessarily in duplicating expenses. Let us hope that we will learn how to spend money thus saved in a businesslike way for the purpose of creating a wider distribution and educating the people to a greater consumption of apples.

Attention is called to a list of fairs and apple shows which appears elsewhere in this edition. We would strongly urge that every fruitgrower look over this list because we believe it is every fruitgrower's duty to attend the small fairs and fruit shows which are held in his district, and we strongly urge all growers who are able and can spare the time to attend some of the big shows that will be held this year. Among the more important will be the National Apple Show at Spokane, the Pacific Northwest Land Products Show at Portland, November 18 to 23, and the California Apple Show at Watsonville, October 7 to 12. These will be the three great big shows of the Northwest and Pacific Coast this year.

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We also urge fruitgrowers to exhibit at all local shows as well as the big shows. The list of premiums that are being offered are very attractive. Each and every one of these shows will be splendid, in fact the educational feature will be a big factor in every one of them. In addition to this, the fruit-grower who attends will have an opportunity to become acquainted with many other growers from all of the different districts. The opportunity for personal discussions at these shows is one that no fruitgrower can well afford to miss. Perhaps there is no better knowledge than that obtained from experience, by visiting these shows and meeting other fruitgrowers. The fruit-grower has an opportunity to profit by the experience of others. So many fruitgrowers have attended fairs and apple shows in the past that it seems hardly necessary for us to say more upon the subject, and therefore our final advice is to attend your own local show, your own state fair and one of the big expositions—whichever is nearest.

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Marketing Fruit A Very Vital Question

W. K. Newell, Gaston, Oregon, before Oregon State Horticultural Society

THE question of most vital importance that now confronts the fruit-growers of Oregon is that of marketing. Situated as we are at a great distance from the large cities of the Eastern States and Europe, and producing a large surplus that must be exported, the matter of reaching these markets at a profit is a serious one. There is unquestionably a market for our fruit if we can find it and reach it at a price that will not be prohibitive to the consumer. Statistics show an immense falling off in the production of apples in the United States; the crop of 1896 was 67,000,000 barrels while that of 1909 was only 22,735,000 barrels, and the present year only very slightly in excess of last, while the population has increased from 70,000,000 to 90,000,000. Instead of showing this surprising decrease of production and consumption the apple industry should show a growth commensurate with the increase in population. At a time when all foodstuffs have been increasing in price the attention of the consuming public should have been turned more sharply to the food value of apples.

President Howard Elliott of the Northern Pacific Railroad, in an address delivered at the opening of the Spokane Apple Show, is authority for the statement that "apples compare very favorably with bread, dried beans and

similar articles of food in the total amounts of food material present and that it is a source of energy rather than of tissue-forming material. Very careful experiments have been made and show that ten cents worth of fresh apples used as food furnishes 1,467 units (calories) or energy to the body; ten cents worth of porterhouse steak furnishes 441 units (calories) of energy; ten cents worth of dried beans furnishes 892 units (calories), so that in general it may be said that the apple furnishes a wholesome, palatable and very attractive addition to the food supply of the family; and the increasing production of the apple should help to offset the growing price of meat and other forms of food." Horticultural societies and kindred organizations should take steps to spread such knowledge in a way to reach the consuming public in a forcible manner.

Although it may be truthfully said that Oregon leads the way in methods of marketing and that we are far better organized than are the growers of any other fruit section, still it must be confessed that we are far from being organized as we should be. At present we are attempting to market a great quantity of fruit of a class that should never be placed upon the market in the fresh state, and we are crowding upon the market in one or two months' time

a supply that should be distributed over six or eight months. The fruit-consuming public demands, and is certainly entitled to have, a fruit that is at least reasonably sound, well colored and free from insect injuries, and in a clean, attractive package, if it is to pay prices that are remunerative to the grower. The markets are getting more and more particular each year as to the quality of the fruit and the attractiveness of the package, and nothing pays better than to cater to this demand for the best. Even the most careless grower has some good fruit, and it will be money in his pocket to pack and sell that little by itself. A prominent Eastern horticulturist who came out here to learn our methods went home and said "that the Western growers had learned that two good apples are worth more than two good apples with two poor ones thrown in." This is undeniably true even if we have not all learned it yet. It is not alone the waste of time and material in packing, but it means the demoralization of our markets to dump great quantities of stuff on the market that should have gone to the cannery, evaporator, cider mills or the pig pen. That is the trouble with the local markets at the present time; there is so much poor stuff being offered at a low price that there is not a healthy, active demand for good fruit.

We must have more facilities for utilizing the fruits that are not fit for the market in the fresh stage. Every fruitgrowers' union must provide itself with a canning and evaporating plant, with cider presses and vinegar tanks and a cold storage warehouse. Then the fruit can be graded as it comes in and handled accordingly; if prices are right the best can be placed upon the market and the over-ripe and culls be canned, dried or made into vinegar as its condition will warrant. If advisable the cold storage warehouse will furnish storage while waiting for prices to adjust themselves. We simply must be in shape to take care of all the crop, so that none shall be wasted, nor any unfit fruit be forced upon the market for lack of other means of disposing of it. And we must be able to store and hold our fruit if the markets are not in good condition. At present we are too much at the mercy of the buyers; every well-informed grower knows that apples should be bringing better prices and meeting with readier sale than they are at present, but many of the large dealers lost money last year, so they claim, in buying, and this year have industriously peddled stories of great yield, over-production, etc., and have refused to buy heavily, knowing that the growers had not facilities for storing and must force the crop on the market. If ever we are to have anything to say as to the prices our fruit shall bring we must be able to control it until the consumer is ready for it.

The success of the fruit industry of the Northwest for the future depends entirely upon the way in which we meet and solve this question of marketing. We can produce the fruit and will produce it in ever increasing quantities, provided it can be sold profitably. Manifestly it is beyond the ability of any grower, local dealer or local fruit union to reach out very far in the development of new markets, or of increasing our sales in our present markets. At present the different districts of the Northwest, whose interests are identical, as our export fruits must reach the same markets, are competing with each other instead of co-operating as they should do to prevent the glutting of certain markets and the ruinous cutting of prices. The Northwest Fruit Exchange, recently organized in Portland, is working along the right lines and has been of great benefit this year in the working up of new and untried markets. This movement must be perfected and controlled more exclusively by the growers. We have much to learn from the orange growers of California who have organized their business so well that oranges are found on sale in the most remote cross-roads villages all over the land, and their fruit is the most stable in price of any on the market. In addition to their well organized central selling agency they have recently established an orange auction sales department at Los Angeles, where oranges are sold daily to the highest bidder. This plan is said to be working extremely well.

We must have a strong local union at every shipping point in the Northwest, which union shall have absolute and exclusive control of the grading, packing and selling of every pound of fruit produced by its members. Absolutely uniform rules for grading and packing must be followed by each and every union, and then a central selling agency can be maintained which can handle the sales for all. The selling will be a simple matter when the control is all in strong hands and when they can absolutely guarantee the contents of every package that they offer. They can reach out until every market in the world is at our command. We must follow the methods that have made the German manufacturers so wonderfully successful, that have enabled them to so far distance their English and American competitors in so many foreign markets; that of sending out their best salesmen to hunt far and wide for markets and to find out just what that market wanted; the style and price of goods and how they wanted it packed, the terms of payment and everything in the remotest way connected with the deal. The English and American way has too often been to send just what they were manufacturing or what they couldn't sell at home, or what they thought the foreign market ought to want, and let it go at that.

Every market has its peculiarities, which must be learned and catered to, even though they may seem trifling to the shipper. It is expensive business trying to educate the public taste to take something it is not accustomed to. Let us give them the kind of fruit they want, if possible; failing that, it is time to try to induce them to take what we have. New York has been so long accustomed to getting all its supply of the cheaper grades of apples in barrels that it is absolutely useless to ship any thing but the largest and fanciest fruit there in boxes, and they want red fruit in preference to yellow. Many of the English markets prefer the yellow apples and the smaller sizes. The dealers in Baltimore and Washington have for generations sold fruit by the peck, and the box or barrel is carefully

sized up as to how many pecks it will measure out. Some day the consumers in those cities may learn to buy apples by the box or the dozen, but in the meantime let us give them fruit that they can retail by the peck or half peck. One of the most successful politicians this country has ever produced once said that he never tried to force a policy nor a candidate on an unwilling public, but that he always studied their wishes and tried to meet them. Such a policy is just as successful in business as in politics.

It scarcely seems necessary to cite any more arguments in favor of local associations at every shipping point, the need is so obvious, yet the advantage of uniform grading might be further noted. With all the fruit under one control it is possible to sell ahead and to sell in straight carloads of whatever variety, size and grade the purchaser wishes. It is true that sometimes a mixed car can be sold as readily as a straight one, but ordinarily not. Take a mixed car with five to ten varieties and three grades, the bulk of them may be all right in one market, but on the others the buyer may insist on heavy discounts because they are not suitable

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for his trade. On the other hand, this same car in some other market might prove to be desirable in the opposite varieties and undesirable in the others, so in order to get top-notch value for every variety shipped they should be shipped in straight cars. The same rule applies to the shipment of mixed grades: it is much better to ship the choice and fancy grades separately.

There has been great confusion in regard to this matter of grading. We have had "Fancy," "Extra Fancy," "XXX Fancy," "Choice," "Choice No. 1," "Choice No. 2," and so on, according to the "fancy" of the packer, until the terms had ceased to have any real meaning to the buyer. As the result of a conference held at the Spokane Apple Show last year the matter was simplified a little; the growers and packers there agreeing to mark "Extra Fancy," "Fancy," "Choice" and "Orchard Run," the latter term applying to ungraded apples, and "Choice" to the grade commonly called cooking apples. This should be still further simplified, and only two grades recognized, "Fancy" and "Choice." The term Extra applied to Fancy does not mean anything. In order to be "Fancy" it must be clean,

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It's our business as nurserymen to know how to produce good trees and to so grow, dig and pack them as to place them in our customers' hands so that they will thrive from the start.

A visit to our plant will convince anyone that we have the soil, the climate and the equipment, and that we do know our business.

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H. S. BUTTERFIELD, President

sound fruit of the highest color for the variety, and there cannot well be a higher standard commercially than that. The bulk of our exports must be of fancy grade, but the standard must be raised a little for the choice grade, and a very considerable market can be found for fruit of that grade. It must of course be absolutely free from insect pests, and sound in condition, but may be off color and contain fruit marred by limb rubbing or marked by weather conditions. It cannot be too often nor too forcibly repeated that the standard of our fruit must be raised to a higher plane and maintained there if we are to continue to hold our trade.

Great progress is being made each year in the matter of shipping of our more perishable fruits to distant markets. When we are well supplied with precooling stations and refrigerating

plants we can successfully enlarge the market for all our more perishable fruits, such as strawberries, cherries, plums and prunes. These already reach a very wide market, but the scope can be doubled at least, with proper facilities. Oregon is in a position now to become the leading apple and pear producing state in the Union. We have the reputation for the highest quality fruit grown anywhere, and we have more suitable land than any other state. The completion of the Panama Canal will put us in splendid shape for reaching the markets of Europe by means of refrigerator steamers, with freight rates one-half less than we are now paying. The natural advantages are all ours and it only remains for us to do our part and in ten years the fruit production of the state should reach the sum of fifty million dollars.

The Storage in Transit Question

Mr. Blakely, Spokane, before Washington State Horticultural Society

THE subject assigned, "Storage in Transit," particularly on apples, is one which has to deal somewhat with the marketing of the product and the benefits that may be derived from an arrangement of this character. Under the tariffs now covering the transportation of apples to the territory east of St. Paul and Minneapolis the provision is granted that apples may be stored in transit at Duluth, St. Paul or Minneapolis transfer, and at those points wait for completion of service to a more distant market. The storage is, however, of public character, not handled by the railroads and not controlled by the people who raise the fruit, and not of a certain or permanent character. Some question may be raised as to whether the interests of the fruit-grower are best served under the present arrangement. I think not. It seems to me that the expense of this storage at points where the property used is expensive, both for its construction and for the land occupied, the more general use of storage in the ter-

ritory and the higher price for the space. Another question: Does it serve the best interests of the grower to place his crop, while still in his ownership or control, in storage at a point so remote from his own location or from the point of production? Is the grower or the association not at some disadvantage in endeavoring to handle his product at such a great distance? Can he be closely enough in touch with the markets at the point of storage, or east of there, to take the best advantage as to the time to sell so as to secure the greatest profit? I have heard individuals make some statements as to their experience in storage in Western territory, complaining loudly about the cost of the storage, the charges that were made for various purposes, and it seemed as though it took a very large value off the crop; that the various items which were charged made a very much larger tax against the apples than conditions justified. The question may naturally arise: Why would it not be better to

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store the apples nearer home, and would not the grower be able under these circumstances to make an arrangement which would very much lessen the cost of storage, insurance and various other items if the storage was of a mutual character, created and maintained by the growers themselves as an association, could not they profit to the same extent that the grain growers in this territory now claim to be profiting by storage of their own grain? There are other reasons, and I think they are very strong ones, why the apples should be stored in the territory of their production rather than that the growers should be dependent upon the means of transportation for placing the apples in the Eastern territory immediately upon the ripening of the crop. The future growth of the business, I think, is anticipated and realized very generally by the people who are now engaged in it. I have heard a number of statements that within a very few years the apple product of the Pacific Northwest, including Montana, would probably reach forty thousand cars per annum. Let us put it at half that and give some consideration to what it means in its transportation.

I think, generally speaking, that the present conditions would contemplate the movement of the apple crop from this territory to Eastern market within a period approximating sixty days. It would certainly mean that if no other means than we have at present are provided for caring for the apples where they grow. Twenty thousand cars of apples transported or offered for shipment in sixty days would be approximately 350 cars per day. Now, assuming that one hundred days was a reasonable period for their transportation, it would still call for two hundred cars per day to be removed east over a haul of nearly two thousand miles by most any of the transcontinental lines to

reach storage territory where the apples could be held even before shipping to their final destination. Take into consideration that the movement takes place generally after the weather in Dakota, Minnesota and other Northern States has not gotten to a point where we may reasonably expect zero temperature, it is necessary that refrigerator cars should be furnished for the movement of this fruit. At two hundred cars a day it doesn't take long to estimate what demands would be put upon the railway companies to furnish the necessary equipment to take care of such a movement. On the other hand, we must meet—the grower must meet—the proposition of being practically forced to make some disposition of his crop immediately upon its being ready for gathering. If we had 20,000 cars of apples, say at 600 boxes to the car, and the market value was a dollar a box it would take twelve million dollars to buy this product if it was to be shipped within ninety days to the Eastern markets. The freight and shipping charges to the general destination might be figured at perhaps 50 cents a box, probably not less than that, which means an additional investment of six million dollars, making eighteen million dollars of cash, practically, to handle this crop. Now, is it possible to enlist the investment of such an amount of money by Eastern people who have got to take hold of the crop? Is it possible to enlist the investment of such an amount of money in a crop to move within that limited time and to be carried to these investors in the East, subject to the varying conditions of the market and the possibilities of loss of profit? It is rather beyond, I think, the expectations of any of us that this could be depended upon. On the other hand, assuming that storage could be provided in this territory for the apples and that instead of being shipped via the long hauls to the

East upon gathering they should be shipped to central points where they could be stored in frost-proof storage, also where they could be kept at a cool temperature necessary to properly preserve the fruit held there awaiting the demands of the market. Instead of the grower being forced to sell them on the tree, or sell them as gathered, at whatever he can get for them, let him be in position to peddle them out during the winter or during the time that they are fit for consumption and place them on the market as the market demands. Compare the way the apple crop is handled today with the way the wheat or hay crop of the country is taken care of. No one has ever presumed or considered it possible for the whole of the wheat crop of this country—the Pacific Northwest—could be sold at one time at a favorable price, even though we appreciate that wheat is cash and that if a man has a thousand bushels of wheat he ought to be able to dispose of it today or tomorrow at the going price. It is impossible, however, to dispose of it all, and taking the market conditions into consideration anyone engaged in that line will know that you cannot at any time put all the grain there is in the country on the market at any one time. There would be no takers for it. There is no one with sufficient money for the proposition, and there would be the question of the movement of it. Even with the short haul from the Northwest to the

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Pacific Coast, the railways use all manner of cars—flat cars, box cars, gondolas—everything, practically, in the railroad service is called in requisition for the movement of the grain crop to the coast, and then the movement extends over a period of four to five months, and all of you who have been engaged in that line of business know the chronic conditions of car shortage when the crop is good or when the market demands or favors a sale.

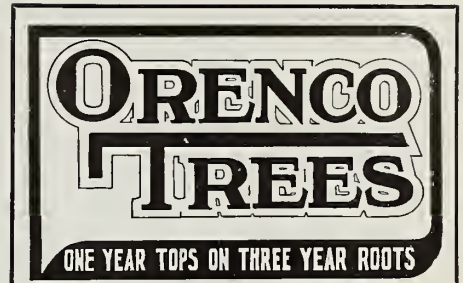
Compare now the conditions in regard to the storage of grain in the Pacific Northwest with the facilities for storage of apples. I think, without doubt, there is in this immediate district of Eastern Washington, Northern Idaho and Northeastern Oregon storage capacity provided for not less than 35,000,000 bushels of grain. It takes about forty acres to produce one carload of wheat, assuming the car to be a thousand bushels. I think twenty-five bushels to the acre would be considered a very good wheat crop. Compare that with acreage of apples and with the prospects for the future as to the product of the apple acreage, which is now growing and which it likely to be increased. That twenty thousand cars of apples to be handled from this country ought to have more cars employed in service than are required to haul the entire grain crop, of the Northern Pacific in the Pacific Northwest States. The crying necessity at this time, it seems to me, is one which calls for preparation in the way of

storage in this territory. It is not going to be possible for all the railroads that are now in this country to handle the apple crop three years from this date on a satisfactory basis to the grower if it is to be put in storage at St. Paul, Omaha, Chicago or any other Eastern point. If, however, sufficient storage could be provided in this territory, and I believe it would be a profitable investment for anybody who went into it, it will, as I have stated, enable the grower to put his crop on the market, not in one lump and not sell it to individuals who come out and take it off the trees at their own price, as will be the case in the future if there is no other arrangement made—but conserve it here and feed it to the market as the market will take it, and at a much better price than would be possible otherwise.

The railroads, I am perfectly satisfied, will all join in any arrangement which provides low rates to the storage point or transit rates through a Western storage point on a nominal price. The present rates to the East where storage in transit is called for is 10 cents per hundred above the rate to the final destination. There is no question but what the roads in the Pacific Northwest would be willing to provide for storage in transit at Lewiston, Spokane, North Yakima or any place where such storage was provided, and at an additional cost which would mean nothing more than a switching charge for the stock. That is very much the same practice as governs in regard to milling in transit on wheat. The rate for that ordinarily is 2½ cents above the through rate on the wheat from the point of original shipment to the destination of the flour. I see no reason why the storage-in-transit rate for apples stored in the territory where the railroads then would have control as to the rate should not be on something similar as to the basis.

Watsonville Apple Annual

Preparations for the Third California Apple Show, which is to be held at Watsonville from October 7 to 12, are well under way. President O. D. Stoesser has appointed his committees and when all are in working order there will be over two hundred men and women actively working for the Third State Apple Show. The floor plans for the show have been adopted, the advance information is already off the press, a number of counties in the state have already applied for space, and the show is progressing rapidly. The plans for the apple show this year call for a class of show that is entirely different from any ever before attempted here or anywhere else on the Coast. Beauty and quality of exhibits will count more heavily than quantity, the arrangement of the exhibits will be different from that of past years here, and the show from one end to the other will justify the catchy slogan of "The Apple Show Different" that has been adopted. The show this year will cover 90,000 square feet, an area one-third larger than that



You must know are RIGHT and can be RELIED upon. A recent letter received from a Portland business man says:

"In my orchard of over 3,000 trees planted with your trees seven years ago, I have lost not to exceed 125 trees—this I think surely speaks well for OREGON NURSERY COMPANY stock, and I shall be pleased at any time and at all times to recommend your Company to my friends."

If you intend planting trees this season—be particular the kind you get—be sure they are grown right, are healthy and backed by a reliable, dependable Company. Plant ORENCO trees. They cost no more than inferior, poorly grown trees. If you're unfamiliar with the best varieties for your section, we'll be glad to assist you in your selection—and our assistance will cost you absolutely nothing.

Our BIG FRUIT TREE CATALOGUE will give you a volume of valuable information on the best kinds of fruit. It only costs you the postage—five cents. Let us send you a copy today, and when you want trees—plant ORENCO'S BEST TREES.



of the Coliseum at Chicago, which housed the recent famous Republican National Convention. While there were exhibits last year from fifteen counties, it is anticipated that this year twice that number will enter. The prize list this year is larger than ever before, and every apple producing section in the state will be welcome to exhibit. Already hundreds of inquiries from all over the state have been received in regard to the coming exposition, which is destined to be the grandest as well as the largest apple show in the world. Watsonville, which annually ships five thousand carloads of apples, is a fitting place to hold such a show, and the eyes of the apple world are already centered on this city from far and wide.

FOR SALE

15 acres winter apple trees, now in their fourth year's growth, located in the Spokane Valley, 2½ miles from Spokane city limits; fine home district, close to two electric car lines; water under pressure for domestic use; telephone, electric lights and R. F. D.; no house or other improvements. Price \$9,000; terms.

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Claims Adjusted against common carriers for creameries, farmers' elevators, livestock and fruit shippers, on account of delays in shipment, overcharge, shrinkage, and loss and damage. No collection, no charge. Five years' experience. References furnished.

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Our New York Store Centrally Located. One block from Erie R. R. Fruit Depot

Northwestern Grading and Packing Rules, 1912

BELOW we print the grading and packing rules of some of the leading fruit growers' associations of the Northwest. The order in which the different associations appear is simply a matter of convenience in the make-up of our pages and has no bearing on the prominence of one association over any other in the list.

Yakima County Horticultural Union

The following apple grades have been adopted by the shippers of the Yakima Valley for the season of 1912, and will be used by them as a basis of quotations to the trade:

Extra Fancy (Blue Ribbon Brand)—Each specimen must be a well formed, fully matured apple, free from insect pests, worms, worm stings, scale, scab, sun scald, dry rot, water core or other defects; limb rub, skin puncture, or other evidences of rough handling will be considered defects. Spitzenbergs, Winesaps, Arkansas Blacks, Ganos and Missouri Pippins must be 75 per cent red; all other red varieties in this grade shall be at least 50 per cent red. Grimes Golden, Yellow Newtowns, White Winter Pearmain, Red Cheeks, Winter Bananas and other green or yellow varieties must show a good bright color. Winter Bananas and Red Cheek Pippins must have a red cheek. No greater count than 175 shall be accepted in this grade. Apples to be wrapped and boxes lined.

Fancy (Red Ribbon Brand)—This grade shall consist of well formed, fully matured apples, free from insect pests, worms, worm stings, scale, scab, sun scald, dry rot, water core or other defects. Limb rub, skin puncture or other evidences of rough handling will be considered defects. Each Spitzenberg, Arkansas Black, Winesap, Gano and Missouri Pippin must show not less than 25 per cent good red color; other red varieties must show not less than 10 per cent red. All apples to be wrapped unless otherwise specified.

C Grade—All merchantable apples not included in the Extra Fancy or Fancy grades will be accepted in this grade. Each apple to be free from worms, scale or other infectious disease. Apples to be wrapped unless otherwise specified. All apples to be packed in Northwest standard box.

Northwestern Fruit Exchange

Extra Fancy—This grade shall consist of sound, smooth, well formed apples only, free from all insect pests, disease, blemishes and physical injuries, worms, worm holes, stings, scale, scab, sun scald, fungus, dry rot, decay, water core, spray burns, limb rub, russeting, skin puncture, skin broken at stem. All apples must be of natural color and shape, characteristic of the variety. Apples heavily coated with dirt or spray must be cleaned. Color requirements for this grade are as follows: Solid red varieties, like Arkansas Black, Gano, Jonathan, Missouri Pippin, Spitzenberg, Winesap, etc., must have at least 75 per cent of good natural color. McIntosh Red must have not less than 66% per cent of good natural color. Striped or partially red varieties, like Ben Davis, Delicious, Rome Beauty, Stayman Wine-

sap, etc., must have at least 50 per cent of good red color. Red cheek or blush varieties, like Red Cheek Pippin, Winter Banana, etc., must have a distinctly colored cheek or blush. Sizes in this grade shall not be smaller than 175s, except that Jonathan, Missouri Pippin and Winesaps may be packed as small as 200s.

Fancy—Apples in this grade must possess the same physical requirements as to soundness and freedom from insect pests, disease, blemishes and physical injuries or defects as in Extra Fancy, with the exception that minimum defects, such as slight limb rub and russeting may be accepted. Broken or punctured skin will not be permitted. Slight deviation from proper form may be included, but this will not include clearly misshapen fruit. Fancy grade must be considered as representing strictly first-class commercial fruit, fit for

any market. Apples heavily coated with dirt or spray must be cleaned. Color requirements for this grade are as follows: Solid red varieties, including McIntosh Red, must have at least 33½ per cent of good natural color. Striped or partially red varieties must have at least 20 per cent of good red color. Red cheek or blush varieties must have correct physical qualities, without requirement as to color. Sizes in this grade shall not be smaller than 175s, except as follows: Newtown Pippins and other yellow or green "pippin" varieties may be packed up to 225s inclusive. Solid red varieties may be packed up to 200s inclusive, when containing not less than 50 per cent of good red color. Winesaps and Missouri Pippins may be packed as small as 225s when of not less than 75 per cent of good natural color.

C Grade—This grade shall be made up of all merchantable apples not included in the Extra Fancy or Fancy grades. Apples must be free

Smith & Currier Fruit Co.

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System of apple distribution insures fruit being sold on short-supplied markets.

Unexcelled connections for high class fruit in all the ports of Europe and principal American cities.

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from all insect pests, worms, worm holes, disease or physical injuries, including skin puncture and broken skin. No requirements as to color, except that the fruit must clearly be not immature. Sizes may be as small as 200s, except under unusual circumstances.

ASSOCIATIONS USING ABOVE RULES

Apple Growers' Union of White Salmon Valley; Benton County Growers' Union; Black Rock Commercial Orchards; Brewster Fruit Growers' Union; Cashmere Fruit Growers' Union; Chelan Fruit Growers' Union; Chenoweth Orchards; Congdon Orchards Association; Cove Fruit Association; Dufur Valley Fruit Growers' Association; Emmett Fruit Growers' Association; Eugene Fruit Growers' Association; Farmers' Union Exchange; Grants Pass Fruit Association; Goldendale Fruit and Produce Association; Hamilton Fruit Association; Imbler Fruit Growers' Union; La Grande Fruit Association; Lewiston Orchards Association; Mosier Fruit Growers' Association; Nampa Fruit Association; Peshastin Fruit Growers' Association; Rogue River Fruit and Produce Association; Stevens County Fruit Growers' Union; Tiedt Land and Orchard Company; Touchet Valley Growers' Union; Umpqua Valley Fruit Union; Victor Fruit Growers' Association; Weiser River Fruit Association; Wenatchee District Fruit Growers' Union; Woodside Fruit Growers' Association.

Yakima Valley Fruit Growers' Association

APPLES

Association pack to be designated as Extra Fancy, Fancy, and C Grade.

Extra Fancy Grade—This grade consists of well formed apples only, free from all insect pests, worm holes, stings, scale, scab, sun scald, bitter or dry rot, water core or other defects. Limb rub, skin puncture, skin broken at stem, bruises or other evidence of rough handling shall be considered defects. All apples heavily coated with dirt or spray must be cleaned. All varieties of apples admitted to this grade shall be well matured and of natural color characteristic of the variety; all red varieties must have 75 per cent of good red color; Ben Davis, Rome Beauty, Baldwin, Wagener and other varieties of similar color must show a red color of 50 per cent; Red Cheek Pippins and Winter Bananas must show a red cheek. Sizes smaller than 200 to the box will be excluded from this grade, except that Winesaps and Missouri Pippins may include sizes not smaller than 225. All apples of this grade must be carefully wrapped and properly packed; the box should be lined with paper, with cardboard on top and bottom only.

Fancy Grade—Apples of this grade must be free from all insect pests, worm holes, stings, scale, sun scald, bitter or dry rot, water core or other defects. Skin puncture, bruises or other evidence of rough handling shall be considered defects. Slight limb rub or like defects not exceeding one-fourth inch in diameter will be permitted. All varieties of apples admitted to this grade shall be well matured, and all red apples must show 25 per cent color. This grade must also be carefully wrapped and properly packed; the boxes should be lined with paper, with cardboard on top and bottom only. No pack greater than 175 shall be permitted in this grade, except Winesaps and Missouri Pippins, which shall be accepted up to and including 200.

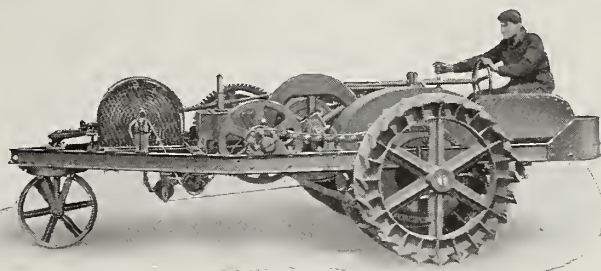
C Grade—This grade shall be made up of all merchantable apples not included in the Extra Fancy and Fancy grades. These apples must be free from all insect pests, worm holes and scale, but will include misshapen apples or apples having a limb rub or other like defects. Apples of this grade may also contain two worm stings, perfectly healed over without indentation and not exceeding one-sixteenth inch in diameter, or may show slight bruises. Each apple must be wrapped. No count greater than 163 will be permitted.

SUMMER VARIETIES

Extra Fancy Grade—The same as Extra Fancy grade of winter varieties, except that color is eliminated. All apples wrapped.

Fancy Grade—Includes both Fancy and C grades of winter varieties, except that color is eliminated, with sizes limited to 175. All apples wrapped. All sizes under 175 count to be packed in half boxes or peach boxes and faced only. Use standard boxes, cleats on top and bottom; 6-penny nails, four on each end. Should bulge three-quarter inch top and bottom. Association labels to be used on Extra Fancy and Fancy apples only. The time and place of application to be determined by the association.

Proper Marking—Use care in stamping boxes. Have all marks on straight. Stamp the size in



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10,000 feet glass

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The world's famous Spitzenberg and Yellow Newtown in large supply. Also Winesap, Jonathan, Stayman Winesap, Rome Beauty, Gravenstein, Wagener, Northern Spy, Ortley and Arkansas Black. A full line to select from. Special prices to commercial planters.

Get our price list before placing your order.

The Hood River Standard Nursery Co.

HOOD RIVER, OREGON

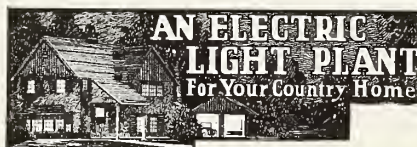
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of wearing out your life in a stuffy office or worrying over your business cares in the city. Come to the beautiful Hood River Valley and enjoy the healthful outdoor life that you have dreamed about. You may not handle as much cash every month as you do in the city, but in all probability you will have more saved at the end of each year and will be able to live off of the best that the land has to offer and sleep soundly 365 days in the year. Come here and let us show you business propositions for business men, and you will kick yourself for not knowing of this valley years ago.

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the upper left hand corner. Stamp the grade at the top in the middle. Stamp the variety in the upper right hand corner. Stamp grower's name, packer's number and warehouse receipt number on the opposite end of the box.

PEACHES

Peaches should be picked for packing only when fully developed, but firm or hard-ripe. Yellow meated varieties should show some yellow color. The fruit should be picked and laid into the basket or pail, not dropped, and should be taken from the vessel only at the packing table. All possible care should be used to avoid bruises. Use standard peach boxes. Cleats on top only. Use 4-penny special orange box or 3-penny cement box nails for bottoms and sides. Drive nails one inch from corner. Four nails to each piece. Use three 4-penny cement box nails to each cleat, one in the center and one driven two inches from each end of the cleat. The cover should hold the fruit firmly in the box, but should not bulge more than three-eighths inch. Use 4½-inch boxes only for Elberta peaches running 50 to 72, both inclusive, avoiding the use of extra cleats except in extreme cases. Peaches between 2½ and 3 inches in diameter should be packed 2 and 3 in 4½-inch boxes. Peaches between 2 and 2½ inches in diameter should be packed 3 and 3 in 4-inch and 4½-inch boxes. The excellence of the pack depends upon uniform grading. The peaches in a box should not vary more than one-eighth inch in diameter. All grades must be carefully wrapped in suitable paper. Peaches less than 2 inches in diameter should not be packed for shipment; 2¼ inches in diameter should be the minimum for Elbertas. In packing, the box should sit on an incline with the lower end to the packer. Both tiers should be carried forward together. The peaches in the top tier should rest in the spaces between the peaches in the lower tier, so that no peach will rest squarely on top of another peach. No overripe, undersized, immature, bruised, misshapen, diseased, wormy or otherwise defective fruit should be packed, except that overripes may be packed for special purposes, with the letter R marked on the end of the box. All marks should be placed on one end of the box only. The variety should be placed in the upper left hand corner, the number of peaches in the upper right hand corner, and the grower's name in the lower left hand corner, and name of local district in lower right hand corner, leaving the central part for the association's label. Use rubber stamps. Each local district shall employ an inspector qualified to give instructions in picking and packing, and whose duty it will be to see that each packing house is superintended by a person competent to enforce these rules. The use of the association labels is recommended wherever possible, the time and place of application to be determined by the association.

PEARS

Bartletts and similar varieties shall be packed in the standard box, weighing not less than 52 pounds gross per box, and shall be graded as Extra Fancy and Fancy. Half boxes should weigh not less than 26 pounds gross.

Extra Fancy Grade—Shall consist of pears not less than 2¼ inches in diameter (except Winter Nelis, which shall be not less than 1¾ inches); shall be free from worms, scale, all bruises and defects, limb rubs or misshapen. Pears without stems will not be accepted in this grade.

Fancy Grade—This grade should be but slightly below Extra Fancy. Not less than 2¼ inches, except Winter Nelis, which shall be not less than 1¾ inches. Limb rub or other slight defects will be accepted, except that stem or part of same must be intact. The use of the association labels is recommended wherever possible, the time and place of application to be determined by the association.

Wenatchee Valley Fruit Growers' Association

Proper Marking—In marking all fruit packages care should be taken that all marks are placed in a neat manner, and in the proper place. The grower's name, the grade, variety and number of apples in the box should appear on labeled end of box above the label. We suggest that the following rule be adopted:

John Doe	Extra Fancy	Winesaps
or No. 42		4 T. 113

Picking—All fruit shall be carefully picked at the proper stage of ripeness and laid (not dropped) into buckets and baskets or into bags that open at the bottom. No windfalls or fruit that drops from the trees from any

cause shall be placed with the picked fruit. When pouring fruit from the picking bucket or basket into the boxes, the hucket or basket shall be put down into the box until it rests upon the bottom of the box. The picker shall then place his hand over the fruit so as to let it into the box gently, that it may not in any way be bruised. All wagons used for conveying the fruit from the orchard to the packing house, and to the shipping station, must be supplied with springs, so that there will be no jar to mar or bruise the fruit, and tarpaulins or other covering should be placed over the loads to keep out the heat, dust or rain.

PEACHES

Growers should remember that it takes from seven to ten days for peaches to arrive on the market, and all peaches should be picked accordingly.

Fancy—All peaches shall be free from worms, scale, diseases, blemishes, split pits and picking bruises; sound, firm, smooth, true to name and well colored for the variety. No Elberta peaches of greater count than 90 to the box will be received; no other varieties with more than 100 to the box shall be accepted, except Alexanders, Hale's Early and Triumphs.

Grade C—All fruit in this grade shall be in as perfect condition as the Fancy grade, with the exception of color.

Each grade and count shall be of uniform size, each peach neatly wrapped in paper, and boxes carefully and tightly packed, suitable for long distance shipping. Diagonal pack must be used in packing all grades of peaches, sides to be solid. The number of peaches each box contains, with the variety, grade and grower's name, shall be plainly stamped on the end of each box.

Suggestions—Use Washington standard boxes of appropriate size. In making boxes use six 4-penny cement nails for each side, twelve 3-penny cement nails for bottoms, and eight 4-penny cement nails for top, nailing through cleats only. Use no cleats on bottoms. Be careful in nailing that no points protrude.

APRICOTS, PLUMS AND PRUNES

Growers should bear in mind that it takes from seven to ten days for apricots, plums and prunes to reach the market, and all fruit should be picked accordingly. All fruit shall be packed in four-basket crates, three tiers to each basket. Fruit must be hand picked, sound and merchantable, and no smaller than 6x6 pack will be accepted. Crates must weigh not less than 27 pounds gross.

Suggestions—In making crates use 4-penny nails on sides and bottoms. Nail through cleats on top with 4-penny cement nails. Use no cleats on bottom. Use prune paper, 32x7½ inches, between each layer and over top.

PEARS

Name of variety, grade and number of pears shall be plainly stamped on end of each box; also grower's name.

Fancy—Bartlett, Buerre d'Anjou, Comice, Flemish Beauty, Buerre Clairgeau, Fall Butter and kindred varieties shall be no smaller than 2½ inches in diameter. Winter Nelis pears must be no smaller than 1¾ inches in diameter. All pears must be packed in Washington standard boxes and to weigh not less than 50 pounds gross to the box. All pears to be neatly wrapped in paper, free from worms, worm stings, scale, picking bruises, blemishes and evidence of rough handling of any nature whatever.

Grade C—All fruit in this grade shall be sound, free from worms, worm stings, scale and diseases. Slightly misshaped pears or those having limb rubs or other slight defects may be included. No fruit less than 2¼ inches will be accepted. In fact, stock in this grade must be only a little below Fancy.

Suggestions—In making boxes, use eight 5-penny cement nails on each side, eight 6-penny cement nails on bottom and top, nailing through cleats only.

SUMMER APPLES

Pack only one grade of summer apples—orchard run. But in making this pack keep out all small and imperfect fruit, or, in other words, pack only sound apples free from worms, scale and other defects, and pack no smaller than 200 apples to the box. All boxes shall be stamped with the variety and number of apples the box contains; also with grower's name.

FALL AND WINTER APPLES

All fall and winter apples shall be packed in standard size boxes; the boxes must be new and clean. The side pieces shall be nailed with four nails in the end of each piece. Both the top and bottom shall be cleated and four nails shall be used in each cleat. No smaller than 5-penny cement nails to be used throughout. Do nailing properly. All boxes shall be lined with paper on the inside, and all apples

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Winter Nelis Pears and all popular varieties of Apples.

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to know for a certainty that the nursery stock that they plant in their orchards is propagated from the best bearing fruit trees in the Northwest.

WE GROW EXCLUSIVELY SELECTED TREES OF CERTIFIED PEDIGREE.

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This is to certify, that the trees of.....variety, marked Pedigree Number....., were propagated from the orchard of.....at.....

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Y-S Trees Grow

The following report over 99 per cent trees planted 1912 are growing: William Simpson, Summerland, B. C., 20,000 trees; J. B. Early, Grandview, Washington, 10,000 trees; E. McCulloh, Sunnyside, Washington, 2,730 pears. Norman Gill, English Government, India, 125 trees, all but three growing.

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Pure Food Kitchenette

Made of Metal
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THE KITCHEN CABINET OF THE FUTURE

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Hood River, Oregon

shall be wrapped, unless otherwise specified. The apples shall be firmly packed in boxes in tiers, and each box shall contain a uniform size of apples. The boxes after being packed shall show not more than 1½ inches nor less than 1 inch bulge on top and bottom inclusive. While the apples must be firmly packed, so the boxes will be full and the apples secure in their places, the pack must not be so tight as to bruise the fruit. Apples range from 36 to 200 to the box. This year the number of apples the box contains should be stamped on the outside, instead of tiers. This is done so that the retailer will know how many apples are in the box and his cost per apple or dozen. All apples must be packed diagonal, with solid sides. All fall and winter apples shall be graded in three grades, viz: Extra Fancy, Fancy and C Grade.

Extra Fancy—In this grade all apples shall be sound, smooth, free from worms, worm stings, scale, water core, sun damage or diseases of any kind, and of proper shape according to the variety. No apples smaller than 175s shall be allowed in this grade, nor any apples that are of a red variety that are not at least three-fourths red, except that Rome Beauties, Ben Davis, Snow and Apple of Commerce one-half red will be taken in this grade. Yellow Newtowns, White Winter Pearmaines, Grimes Golden, Bellflowers, Winter Bananas and Red Cheek Pippins will be allowed in this grade, but no other variety of yellow apples. Winter Bananas and Red Cheek Pippins must show a red cheek.

Fancy—In this grade also all apples must be smooth, sound, free from bruises, blemishes, worms, worm stings, water core, sun damages or diseases of any kind, and of proper shape according to the variety. No apples smaller than 175s shall be allowed in this grade, excepting apples of the following varieties, which will be accepted when packed as small as 200 apples to the box: Winesaps, Jonathans and Missouri Pippins, when red all over. All apples or red varieties ranging in color from three-fourths red down to one-third red will be included in this grade. All varieties of yellow apples will be allowed in this grade.

Labels—All boxes containing apples graded Extra Fancy or Fancy must bear association label on end of box.

Grade C—This grade shall be made up of all merchantable apples not included in the Extra Fancy and Fancy grades. These apples must be sound and free from bruises, worm stings and other diseases. Skin to be unbroken, but will include misshapen apples or apples having a limb mark or other like defect. This grade will include apples of all colors and as small as 200s, but no smaller. It is optional with the buyer whether or not this grade is wrapped.

Hood River Grading Rules

The three grades, Extra Fancy, Fancy and Choice, heretofore in common use, will be recognized. Special and Orchard Run grades are also established. Rules governing the disposal of cooking and cider apples are appended, also the specifications and explanations defining the condition of the fruit to be placed in the respective packs and grades.

Extra Fancy—This grade includes mature, normal shaped apples free from imperfections. Spitzenbergs 175s and larger must be three-fourths (75 per cent) normal red color; sizes 185s to 200s inclusive must be 90 per cent red. All red varieties must show at least three-fourths red color; striped or partially red to show one-half (50 per cent) red color. Red Cheek Pippin and Winter Bananas must show a blushed cheek. The Ortley must show white, yellow or waxy. Sizes smaller than 200s will be excluded from this grade, except of Jonathan, Newtown, Winesap, Arkansas Black and Missouri Pippin, which must not be smaller than 225s.

Fancy—All apples placed in this grade must be mature and of a normal shape. All red apples must be at least one-fourth (25 per cent) normal red color; striped or partially red varieties to show 10 per cent red color. Specimens with leaf and limb rubs, spray russet and similar defects which have not distorted the fruit, when not over one-half inch in the aggregate, will be allowed. No

fungus infested or stung apples will be allowed in this grade. No size smaller than 200s allowed.

Special—This grade to include varieties equal to Fancy in grade, but with one sting of the codling moth or one fungus spot not larger than one-fourth inch in diameter or smaller ones aggregating the same area or less. Sizes smaller than 175s must be free from stings and fungus.

Choice—In this grade may be placed all merchantable apples not included in the Extra Fancy and Fancy grades. All apples must be sound, free from bruises, skin unbroken and of good shape. Specimens with a fungus spot not larger than a ten-cent piece and one on an apple, or three spots aggregating a similar area, will be allowed. Sizes smaller than 175s not allowed.

Orchard Run—Only such apples as may be classed as Choice or better may be placed in this grade. No full green specimens of a red variety will be allowed. Sizes limited to 185s for this grade.

Cooking or Cider Apples—The following described apples cannot be placed in any of the grades, but may be disposed of for cooking purposes: Too poorly colored to meet the color requirements of the grades, windfalls, sunburned, injured by sprays, stung by codling moth, bruised, infested with fungus, water core, Baldwin spot or other physiological defects, any of which do not render the apple undesirable for culinary purposes. No sizes smaller than 150s allowed.

Apples infested with San Jose scale, oyster shell bark louse and codling worm must be disposed of according to the Oregon horticultural law.

Sizes—3-tier: 36, 45, 54, 63, 64; 3½-tier: 72, 80, 84, 88; 4-tier: 96, 104, 112, 120, 125, 128; 4½-tier: 138, 140, 144, 150, 165, 175; 5-tier: 185, 188, 190, 200, 215, 225.

H. Olf & Sohn

IMPORTERS AND EXPORTERS OF FRUITS

Hamburg, Germany, August 14, 1912.

Editor Better Fruit:

With regard to your letter of June 21st, referring to Hamburg as a market for apples, we will be glad to give you what information we can and which knowledge we consider fit, to give you an idea as to the amount of business that has been done in the course of the last season, with Hamburg as a distributing center for apples. With respect to the latter point we wish to say for your guidance that about ninety million people are tributary to Hamburg. The Hamburg market is especially adapted for the sale of high class fruit. While in England prices for apples rule according to flavor, and the color is only considered in the second instance, the views in the German market are just the reverse. Apples of a bright and clean color are almost at any time certain to realize good prices. This is especially true of the red varieties. Poorly colored apples, even if of a good flavor, will net a lower price than those of a fine attire, also if the latter do not taste as good as the first. This is a very important point and should be duly considered when consignments are made up for the Hamburg market.

Last year's apples had very poor keeping qualities. On this account prices throughout the past season were low, and the market tendency is even more significant when it is taken into consideration that from Hamburg American apples went as far as Vienna, Southern Austria and Galizia, to people which are used to pay only small prices for their fruit. Transactions have ended in most cases on the loss account for the European importers, the fruit arriving more or less considerably waxy, and in many instances had to be repacked before being sent to inland customers, thus raising expenses considerably.

The Nova Scotian export has been exceptionally heavy the last season, and the Hamburg market has been one of the leading factors for the import. Of the total quantity of Maine and Nova Scotian apples shipped to Hamburg about 80 per cent has been for us. We have made up a list illustrating our last season's apples deal, which we have no doubt will be of interest to you. On going over same you will find nine steamers which we have espe-

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Our Specialties are
APPLES, PEARS AND NAVEL
ORANGES

cially chartered for transportation of the fruit. Among these please notice the steamer Helene Menzell, with a cargo of 31,000 barrels, comprising the largest amount of apples ever shipped to Hamburg by one steamer to one firm. The municipal fruit sheds in Hamburg, equipped with all modern facilities for a proper storage of fruit at any season, will take up quantities as before mentioned in the least possible time. All fruit arriving from sea has to be discharged at these sheds, which stand under the government's supervision. Any amount of apples leaving Hamburg for the inland is to be accompanied by a government certificate stating that same is free of San Jose scale. Fruit infected with scale is not allowed to enter the country and has to be exported to either Russia, Scandinavia or England.

Hamburg is an exceptionally good market for box apples, there being practically no limit as to the price these may fetch, if offered in suitable condition. Especially the fruit of the Northwest, namely, Oregon, Washington and Idaho, is well known to buyers on the Hamburg market. The Yellow Newtowns, Spitzenbergs, Jonathans, Rome Beauties and Winesaps are varieties quite popular among apple dealers in Germany. As mentioned before, shippers should be very careful when selecting fruit for the Hamburg market to pick out only the extra fancy grade and good keeping qualities to avoid disappointments.

On account of the very small crop and the prevailing high prices, our last season's deal

in Northwestern box apples was very small, while in the preceding one we handled somewhat near 20,000 boxes from England. The coming season will again be one for the Northwest and we intend to go in for this variety on a large scale.

Our New York representative, Mr. M. C. Hall, of 76 Park Place, will make liberal advances on any consignment intended for us and will also inspect every carlot before same leaves New York for shipment to Hamburg. We beg to assure our friends that any quantity entrusted to our hands will be handled with the greatest possible care and attention. A trial will convince anybody, provided the advice is followed which we herewith have given to those interested, as to the quality of the fruit desired in our markets. We are looking ahead to a very active campaign and sincerely hope that transactions will develop satisfactory to those engaged in the trade. The completion of our new fruit and vegetable market and the two new market halls, besides the considerably enlarged facilities for auctioneering, predict signs of a probable record turnover during the new season. Yours very truly,

H. Olff & Sohn.

H. OLFF & SOHN'S SHIPMENTS OF APPLES

From the Atlantic Coast		Barrels
Sept. 1, 1911, Halifax via England.....	1,500	
Sept. 6, Halifax via England.....	5,000	
Sept. 17, Halifax via England.....	9,800	
Sept. 26, Halifax via England.....	8,500	
Sept. 29, Halifax via England.....	800	
Oct. 1, Halifax, Str. Joseph Di Giorgio.....	*9,500	
Oct. 23, Halifax, Str. Bound Brook.....	*11,000	
Oct. 28, Halifax, Str. Helene Menzell.....	*31,000	
Oct. 30, Halifax via England.....	2,300	
Nov. 13, Halifax, Str. Florence.....	*23,300	
Nov. 17, Halifax via England.....	5,400	

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HOW TO GET BETTER LIGHT

From KEROSENE (Coal Oil)

Tests by Prof. Rogers, Lewis Institute, Chicago, on leading oil-burning lamps show the Aladdin Mantle Lamp is the most economical and gives over twice as much light as the Rayo and other lamps tested. It is odorless, safe, clean, noiseless. Guaranteed. Better light than gas or electric. To introduce the Aladdin we'll send a sample lamp on —→



10 Days TRIAL
Ask for Particulars
Experience unnecessary. Every home needs this lamp. One agent sold over 1000 on money back guarantee, not one returned. Another sold \$300 worth in 15 days. Evenings made profitable. Ask for agents prices and trial offer.
MANTLE LAMP COMPANY, 614 Aladdin Bldg., Portland, Ore.

LADD & TILTON BANK

Established 1859

Oldest bank on the Pacific Coast

PORTLAND, OREGON

Capital fully paid - - - - \$1,000,000
Surplus and undivided profits - - - 800,000

Officers

W. M. Ladd, *President*
Edward Cookingham, *Vice President*
W. H. Dunclekey, *Cashier*

R. S. Howard, Jr., *Assistant Cashier*
J. W. Ladd, *Assistant Cashier*
Walter M. Cook, *Assistant Cashier*

INTEREST PAID ON TIME DEPOSITS AND SAVINGS ACCOUNTS

Accounts of banks, firms, corporations and individuals solicited. Travelers' checks for sale, and drafts issued available in all countries of Europe.

New Residents

We are always pleased to extend courteous assistance to new residents of Hood River and the Hood River Valley by advising them regarding any local conditions within our knowledge, and we afford every convenience for the transaction of their financial matters. New accounts are respectfully and cordially invited, and we guarantee satisfaction. Savings department in connection.

Hood River Banking and Trust Company
HOOD RIVER, OREGON

LESLIE BUTLER, *President*
TRUMAN BUTLER, *Vice President*
C. H. VAUGHAN, *Cashier*

Established 1900

Butler Banking Company

HOOD RIVER, OREGON

Capital fully paid - - - - \$100,000

INTEREST PAID ON TIME DEPOSITS

We give special attention to Good Farm Loans

If you have money to loan we will find you good real estate security, or if you want to borrow we can place your application in good hands, and we make no charge for this service.

THE OLDEST BANK IN HOOD RIVER VALLEY

HANFORD NURSERIES

Clarkston, Washington

Buying Nursery Stock is like buying anything else—YOU PAY FOR WHAT YOU GET.

HANFORD TREES

HAVE STOOD

The Test for 20 Years Buy Them

Announcement:

By an arrangement with the Vineland Nurseries Co. we are pleased to announce we can furnish a limited number of the

RED GRAVENSTEIN

No apple in years has attracted as much favorable attention and comment. In a letter dated August 19, 1912,

Prof. W. S. Thornbur says:

"I believe that it is bound to become one of the very Popular, valuable apples of the Pacific Northwest."

Our Prices Are Right
Our Stock is Right
Write for Catalog

HANFORD NURSERIES

Drawer 4 Clarkston, Washington

AGENTS WANTED

Ship Your Strawberries Cherries and Vegetables

To Butte, Montana

The Best Market in the West. Write for quotations. Send for our shippers' stamp. Prompt returns.

Butte Potato and Produce Co.
BUTTE, MONTANA

A. J. KNievel
President and Manager

Sixteen years' experience on the Butte market.

From the Atlantic Coast	Barrels
Nov. 18, Portland, Me., Str. Brighton...	*8,200
Nov. 25, Halifax via England.....	6,000
Nov. 29, Boston, Mass., via England.....	4,900
Nov. 30, Boston, Mass., via England.....	2,700
Dec. 8, Portland, Me., via England.....	3,100
Dec. 8, Halifax via England.....	600
Dec. 15, Halifax, Str. Origen.....	*13,500
Dec. 21, Halifax via England.....	1,600
Jan. 6, 1912, Halifax, Str. Frutera.....	*11,800
Jan. 25, Halifax via England.....	7,200
Jan. 27, Halifax, Str. Verona.....	*8,500
Jan. 28, Halifax via England.....	500
Feb. 7, Halifax via England.....	800
Feb. 10, Halifax via England.....	7,700
Feb. 17, Halifax, Str. Thorsa.....	*12,000
Feb. 21, Halifax via England.....	5,700
Mar. 1, Halifax via England.....	9,800
Mar. 16, Halifax via England.....	3,400

Total.....216,100

*Special fruit steamers chartered by us.

From the Pacific Coast	Boxes
Feb. 3, Oregon, Str. Pres. Lincoln	1,860
Feb. 22, Oregon, Str. Pres. Grant	120
Mar. 13, Oregon, Str. Pres. Lincoln	800

Total.....2,780

From England	Barrels
Sept. 27, 1911, Leith	900
Sept. 27, London	450
Sept. 30, London	1,000
Oct. 28, Hull-Grimsby	950
Nov. 1, Liverpool	1,600
Nov. 1, London	2,000
Nov. 2, Liverpool	200
Nov. 5, Hull	950
Nov. 11, Liverpool	250
Nov. 16, Liverpool	650
Nov. 21, Liverpool	150

Total.....*9,100

*Mostly Maine apples.

From England	Boxes
Feb. 17, 1912, London	1,000
Mar. 23, London	550

Total.....*1,550

*California and Northwestern apples.

Summary	Barrels	Boxes
From Nova Scotia and Maine	216,100
From Oregon	2,780
From England	9,100	1,550

Total shipments.....225,200 4,330

Editor Better Fruit:

Enclosed find one dollar for "Better Fruit," as I feel the need of your publication in my fruit raising. Your paper to the "fruit grower" is in my judgment what the Bible is to the Christian, "the rule and guide of life." Have recommended "Better Fruit" to scores and no doubt they have subscribed. I consider your paper the best publication published for the states west of the Missouri River. Yours truly, S. H. Bolton, Twin Falls, Idaho.

Editor Better Fruit:

In August I placed an advertisement for the Hood River box nailing press which I am manufacturing, and it affords me pleasure to say that I have already received orders so fast that I am running at full capacity to fill same. W. G. Snow, Hood River, Oregon.

COLLEGE PROFESSOR SEEKS BETTER METHODS OF DEVELOPING MAXIMUM LIGHT FROM COAL OIL

Not long ago Professor Rogers of Lewis Institute made some extensive experiments with different devices for producing light from coal oil. The results were most interesting, as they show the wonderful progress that is being made toward controlling one of nature's most important forces—light. The tests were made with both open flame and mantle lamps and the results as made public by Professor Rogers showed that the Aladdin Mantle Lamp developed more than three times as much candlepower on one-fifth the amount of coal oil. The Aladdin is manufactured by the Mantle Lamp Company, with offices at Chicago, Portland, Oregon, Dallas, Texas, and Waterbury, Connecticut. *

CHEEK-TO-CHEEK GRADING



EVENTUALLY YOU WILL WANT OUR ADDRESS
SCHELLENGER FRUIT GRADING MACHINE CO.
OGDEN, UTAH.

WHEN WRITING ADVERTISERS MENTION BETTER FRUIT

SECURITY LADDERS

"NOT A NAIL IN THEM"

The Most Economical to Buy and Use

Security Construction is Rigid and Inspires Confidence

Security Patent Step Joint Makes these Ladders STRONGEST Where Others are Weakest



Ask your Dealer for Security Ladders

Light—Strong—Durable—Save Wages

SECURITY LADDER CO., Inc.

Los Angeles, California



Nursery Stock That Makes Good

You can't afford to take any chances when planting nursery stock.

Insure yourself against future disappointment and losses by planting our clean, vigorous, guaranteed trees and shrubs.

Stock is thoroughly matured, absolutely hardy, and entirely free from disease or pest.

EVERY TREE IS GUARANTEED TO BE TRUE TO NAME.

TOPPENISH NURSERY COMPANY

TOPPENISH, WASHINGTON

In the famous Yakima Valley

Northwest Fruit Growers' Unions and Associations

We publish free in this column the name of any fruit growers' organization. Secretaries are requested to furnish particulars for publication.

Oregon

Eugene Fruit Growers' Association, Eugene.
Ashland Fruit and Produce Association, Ashland.
Hood River Apple Growers' Union, Hood River.
Milton Fruit Growers' Union, Milton.
Douglas County Fruit Growers' Association, Roseburg.
Willamette Valley Prune Association, Salem.
Mosier Fruit Growers' Association, Mosier.
The Dalles Fruit Growers' Union, The Dalles.
Salem Fruit Union, Salem.
Albany Fruit Growers' Union, Albany.
Coos Bay Fruit Growers' Association, Marshfield.
Estacada Fruit Growers' Association, Estacada.
Umpqua Valley Fruit Growers' Association, Roseburg.
Hyland Fruit Growers of Yamhill County, Sheridan.
Newburg Apple Growers' Association, Newburg.
Dufur Valley Fruit Growers' Union, Dufur.
McMinnville Fruit Growers' Association, McMinnville.
Coquille Valley Fruit Growers' Union, Myrtle Point.
Stanfield Fruit Growers' Association, Stanfield.
Oregon City Fruit and Produce Association, Oregon City.
Lucin County Fruit Growers' Union, Toledo.
Rogue River Fruit and Produce Association, Medford.
Mount Hood Fruit Growers' Association, Sandy.
Northeast Gaston Farmers' Association, Forest Grove.
Dallas Fruit Growers' Association, Dallas.
Northwestern Fruit Exchange, 418 Spalding Building, Portland.
Springbrook Fruit Growers' Union, Springbrook.
Cove Fruit Growers' Association, Cove.
Santiam Fruit Growers' Association, Lehanon.
Washington County Fruit Growers' Association, Hillsboro.
Benton County Fruit Growers' Association, Corvallis.
Sutherlin Fruit Growers' Association, Sutherlin.
Brownsville Fruit and Produce Association, Brownsville.
La Grande Fruit Association, La Grande.
Imbler Fruit Growers' Union, Imbler.
Dundee Fruit Growers' Association, Dundee.

Washington

Kennewick Fruit Growers' Association, Kennewick.
Wenatchee Valley Fruit Growers' Association, Wenatchee.
Wenatchee District Fruit Growers' Union, Wenatchee.
Brewster Fruit Growers' Union, Brewster.
Peshastin Fruit Growers' Association, Peshastin.
Puyallup and Sumner Fruit Growers' Association, Puyallup.
Yashon Island Fruit Growers' Association, Yashon.
Mount Vernon Fruit Growers' Association, Mount Vernon.
White Salmon Fruit Growers' Union, White Salmon.
Thurston County Fruit Growers' Union, Tumwater.
Bay Island Fruit Growers' Association, Tacoma.
Yakima Valley Fruit and Produce Growers' Association, Granger.
Buckley Fruit Growers' Association, Buckley.
Lewis River Fruit Growers' Union, Woodland.
Yakima County Horticultural Union, North Yakima.
White River Valley Fruit and Berry Growers' Association, Kent.
Lake Chelan Fruit Growers' Association, Chelan.
Zillah Fruit Growers' Association, Toppenish.
Kiona Fruit Growers' Union, Kiona.
Mason County Fruit Growers' Association, Shelton.
Clarkston Fruit Growers' Association, Clarkston.
Walla Walla Fruit and Vegetable Union, Walla Walla.
The Ridgefield Fruit Growers' Association, Ridgefield.
Felida Prune Growers' Association, Vancouver.
Grandview Fruit Growers' Association, Grandview.
Yakima Valley Fruit Growers' Association, North Yakima.
Southwest Washington Fruit Growers' Association, Chehalis.
The Touchet Valley Fruit and Produce Union, Dayton.
Lewis County Fruit Growers' Association, Centralia.
The Green Bluffs Fruit Growers' Association, Mead.
Garfield Fruit Growers' Union, Garfield.
Goldendale Fruit and Produce Association, Goldendale.
Spokane Inland Fruit Growers' Association, Kelso.
Elma Fruit and Produce Association, Elma.
Granger Fruit Growers' Association, Granger.
Cashmere Fruit Growers' Union, Cashmere.
Stevens County Fruit Growers' Union, Myers Falls.

Dryden Fruit Growers' Union, Dryden.
Apple Growers' Union of White Salmon, Underwood.
Spokane Valley Growers' Union, Spokane.
Spokane County Horticultural Society, Spokane.
Spokane Highlands Fruit Growers' Association, Chester.
Spokane District Fruit Growers' Association, Spokane.
Cowlitz Fruit and Produce Association, Kelso.
Kalama Fruit Growers' Association, Kalama.
Pullman Fruit Growers' Association, Pullman.
Spokane Valley Fruit Growers' Co., Otis Orchards.
Northwestern Fruit Exchange, 510 Chamber of Commerce Building, Spokane.

Idaho

Southern Idaho Fruit Shippers' Association, Boise.
New Plymouth Fruit Growers' Association, New Plymouth.
Payette Valley Apple Growers' Union, Payette.
Parma-Roswell Fruit Growers' Association, Parma.
Weiser Fruit and Produce Growers' Association, Weiser.
Council Valley Fruit Growers' Association, Council.
Nampa Fruit Growers' Association, Nampa.
Lewiston Orchards Assembly, Lewiston.
Lewiston Orchards Association, Lewiston.
Boise Valley Fruit Growers' Association, Boise.
Caldwell Fruit Growers' Association, Caldwell.
Emmett Fruit Growers' Association, Emmett.
Twin Falls Fruit Growers' Association, Twin Falls.
Weiser Fruit Growers' Association, Weiser.
Fruit Growers' Association, Moscow.

Colorado

San Juan Fruit and Produce Growers' Association, Durango.
Freemont County Fruit Growers' Association, Canon City.
Rocky Ford Melon Growers' Association, Rocky Ford.
Produce Association, Debeque.
The Producers' Association, Debeque.
Longmont Produce Exchange, Longmont.
Manzanola Fruit Association, Manzanola.
Delta County Fruit Growers' Association, Delta.
Boulder County Fruit Growers' Association, Boulder.
Rifle Fruit and Produce Association, Rifle.
Grand Junction Fruit Growers' Association, Clifton, Palisade, Grand Junction.
Palisade Fruit Growers' Association, Palisade.
Montrose Fruit and Produce Association, Montrose.
Paonia Fruit Exchange, Paonia.
Crawford Fruit Growers' Association, Crawford.
Pent County Melon Growers' Association, Las Animas.
Capital Hill Melon Growers' Association, Rocky Ford.
Denver Fruit and Vegetable Association, Denver.
Fair Mount Melon Growers' Association, Swink.
Fowler Melon Growers' Association, Fowler.
Granada Melon Growers' Association, Granada.
Grand Valley Fruit and Produce Association, Grand Junction.
Independence Fruit Growers' Association, Grand Junction.
Kouns Party (Cantaloupe Growers' Association, Rocky Ford.
Lamar Melon Growers' Association, Lamar.
Loveland Fruit Growers' Association, Loveland.
Manzanola Orchard Association, Manzanola.
Newdale Melon Growers' Association, Swink.
Roaring Fork Potato Growers' Association, Carbondale.
Western Slope Fruit Growers' Association, Palisade.

Montana

Bitter Root Fruit Growers' Association, Hamilton.
Missoula Fruit and Produce Association, Missoula.
Woodside Fruit Growers' Association, Woodside.

Utah

Farmers & Fruit Growers' Forwarding Assn, Centerville.
Ogden Fruit Growers' Association, Ogden.
Brigham City Fruit Growers' Association, Brigham City.
Utah County Fruit and Produce Association, Provo.
Willard Fruit Growers' Association, Willard.
Excelsior Fruit and Produce Association, Clearfield (post office Layton R. F. D.).
Centerville Fruit Growers' Association, Centerville.
Bear River Valley Fruit Growers' Assn, Bear River City.
Springville Fruit Growers' Association, Springville.
Cache Valley Fruit Growers' Association, Wellsville.
Green River Fruit Growers' Association, Green River.

New Mexico

San Juan Fruit and Produce Association, Farmington.

California

The Supply Company of the California Fruit Growers' Association, Los Angeles.
California Fruit Exchange, Sacramento.
Loomis Fruit Growers' Association, Loomis.
Newcastle Fruit Growers' Association, Newcastle.
Penryn Fruit Growers' Association, Penryn.
Vacaville Fruit Growers' Association, Vacaville.
Turlock Fruit Growers' Association, Turlock.
Winters Fruit Growers' Association, Winters.
Lincoln Fruit Growers' Association, Lincoln.
Lodi Fruit Growers' Union, Lodi.
Fresno Fruit Growers' Company, Fresno.
Stanislaus Farmers' Union, Modesto.
California Farmers' Union, Fresno.
Sebastopol Berry Growers' Union, Sebastopol.
Sebastopol Apple Growers' Union, Sebastopol.

British Columbia

British Columbia Fruit Growers' Association, Victoria.
Victoria Fruit Growers' Exchange, Victoria.
Hammond Fruit Association, Ltd., Hammond.
Hatzie Fruit Growers' Association, Hatzie.
Western Fruit Growers' Association, Mission.
Mission Fruit Growers' Association, Mission.
Salmon Arm Farmers' Exchange, Salmon Arm.
Armstrong Fruit Growers' Association, Armstrong.
Okanagan Fruit Union, Ltd., Vernon.
Kelowna Farmers' Exchange, Ltd., Kelowna.
Summerland Fruit Growers' Association, Summerland.
Kootenay Fruit Growers' Union, Ltd., Nelson.
Grand Forks Fruit Growers' Association, Grand Forks.
Boswell-Kootenay Lake Union, Boswell.
Queens Bay Fruit Growers' Association, Queens Bay.
Kaslo Horticultural Association, Kaslo.
Creston Fruit and Produce Exchange, Creston.

Besides your regular order of
Nursery Stock
be sure to get a few

RED GRAVENSTEINS

THIS YEAR

The Vineland Nursery Co.

Box 8

Clarkston, Washington

AGENTS WANTED

The Paris Fair

Hood River's largest and best store

RETAILERS OF

EVERYTHING TO WEAR

AGENTS FOR

HAMILTON & BROWN AND
THE BROWN SHOES
HART, SCHAFFNER & MARX
CLOTHES
MANHATTAN SHIRTS
JOHN B. STETSON HATS
NEMO CORSETS

Strictly Cash—One Price to All

Stranahan & Clark

DEALERS IN

Commercial Fertilizers
Land Plaster
Lime
Plaster Paris
Cement
Building Plasters

HOOD RIVER, OREGON

Things We Are Agents For

Knox Hats

Alfred Benjamin & Co.'s Clothing

Dr. Jaeger Underwear

Dr. Deimel Linen Mesh Underwear

Dent's and Fownes' Gloves

Buffum & Pendleton

311 Morrison Street

Portland, Oregon

Ask the man who owns a

SIMPLEX SEPARATOR

what he thinks of it. That's better proof for you than a lot of talk. Mr. J. R. Adamson, of Long Beach, Washington, after using four other makes, now uses a Simplex. This is what he says:

"If someone had told me about the Simplex before I bought so many other kinds, it would have saved me several dollars, besides the cream I lost in separated milk."

Before you buy—INVESTIGATE. Don't take anyone's word for it. Try them all yourself. Be sure to see the Simplex exhibit at your fair this fall. Write us for catalog, \$ 28.

MONROE & CRISELL

PORTLAND, OREGON

Apples for Chicago

CHICAGO FOR APPLES

Associations and Individual Shippers, let us get together and talk it over.

You invest your time, money and energy—mental and physical—in growing a crop of apples or other products, and we might stop abruptly and say, What for? The common-sense answer naturally would be, To make money. Very good. Now we are coming closer together. Our part is a very important one, and is the climax of all your aims—To make money. Our part is to supply the coin. "Apples are the Mint." "We turn Apples into Money." WRITE US ON THE DATE YOU SEE THIS. WE WILL HAVE OUR REPRESENTATIVE CALL AND SEE YOU.

COYNE BROTHERS, 119 West South Water Street, Chicago, Illinois

"Health's Best Way—
Eat Apples Every Day."

Financial Connections { Corn Exchange National Bank
Old Colony Trust & Savings Bank } CHICAGO
National Produce Bank

Standardization—Weights and Measures

Louis A. Fischer, United States Bureau of Standards, at International Apple Shippers' Association Convention, Detroit

WHILE the title of my paper given in the program is standardization, I shall not attempt to discuss standardization in general, but I shall confine myself to a discussion of standardization only so far as it relates to weights and measures. No cause since the earliest organization of civilized society has contributed more to embarrass commerce between different countries, or between different parts of the same country, than the diversity of standards used in determining the quantities of exchangeable commodities, and the tendency to reduce the number of these standards is as old as commerce itself. In the early stages of civilization objects were bartered one for the other, but as wealth increased and its forms became more varied the necessity for standards

of quantity was soon felt, and it is this necessity that we owe the various weights and measures mentioned in the earlier records of the human race. As nations were formed and as social and political institutions became more fully developed legislation stepped in from time to time to alter or improve these primitive standards and to fix their relation to one another, thus establishing so-called systems of weights and measures which have at the present time been reduced to a comparatively small number by the political union of a number of small countries, and the adoption by the new government of a single system. The system in customary use in the United States was inherited from Great Britain, although the capacity measures differ materially from those now in use in the mother country. In colonial days no attempt appears to have been made to unify the weights and measures in the different colonies, but each colony obtained its standards quite independently of its neighbors.

That the founders of the government of the United States realized the necessity of uniform standards, and recognized that the establishment of standards was a function of the federal government, is shown by section 8 of article 1 of the constitution, which reads as follows: "Congress shall have power * * * to coin money, regulate the value thereof and of foreign coin, and fix the standards of weights and measures." While congress lost no time in exercising its authority so far as establishing a monetary system is concerned, it appears to have taken little or no interest in the correlated subject of weights and measures, although its attention was frequently directed to the importance of the matter by some of our most eminent statesmen. It was not until 1828 that a certain pound weight, known as the Troy pound of the mint, was adopted by congress to serve as the standard for coinage, and this pound has the distinction of being the only concrete standard of weight or measure ever adopted by that body. In this respect

our government is unique among governments of the first or even second class powers. Practically every other country has definite concrete standards and elaborate national laws to enforce their use in trade.

The probable reason for the lack of interest in the subject was that the standards brought over from England by the colonies were sufficiently uniform for the needs of the people when the republic was formed. There was no great amount of commerce between the states for the first fifty years and and discrepancies between the stand-

Wanted Nurseryman out of business wishes management of orchard proposition or fruit growers' union. Experienced in selecting and preparing land, propagating and planting commercial orchards, accounting, transportation, advertising, marketing, and commission business in Chicago. Twelve years west of Rockies. Can handle a large proposition from A to Z and might take an interest. Address "A to Z," care "Better Fruit."

For Sale Eighty-acre fruit farm; 40 acres in winter apples; family orchard of cherries, peaches, plums, pears, apples, walnuts, in bearing. Eight-room dwelling, storage house, barn and other buildings in fine condition. Spring water under pressure. Near school. Healthful climate. Two miles from Lyle, Washington, on the Columbia River. \$200 per acre; terms to suit. FRANK MOORE, owner, Lyle, Washington.



RICHLAND NURSERY CO.

Offer for this season a particularly fine line of Roses, Vines, Flowering Shrubs and Shade Trees, exceptional roots and healthy stocks.

EUROPEAN GRAPES

We have succeeded in obtaining a splendid large stock of European Grapes—none finer ever obtained. Send for Catalog.

RICHLAND NURSERY CO.
RICHLAND, WASH.



When you get to Hood River, stop at the

Mt. Hood Hotel

Occupying one-half block; with a new brick annex.

Rooms single or in suites.

20 rooms with bath.

Special rates to families.

Trains stop daily in front of Hotel.
Bus meets all boats.

ards of the states were hardly noticed. It was not until our foreign commerce became important that the divergency in the weights and measures at the customs houses along our coast and borders finally attracted the attention of congress, which in 1830 passed a resolution directing the secretary of the treasury to cause a comparison to be made of the weights and measures in use in the principal customs houses and report to the senate at its next session. An investigation was at once made in accordance with the above resolution, and startling discrepancies were found to exist among the standards of the different ports of the country, although the average values agreed fairly well with the weights and measures in use in Great Britain at the time of the American revolution. Without waiting for further action by congress the treasury department adopted certain standards for the avoirdupois pound, the yard, the gallon and the bushel, and established a shop and laboratory for the manufacture of copies of these standards with their necessary multiples and sub-multiples. This work was prosecuted with great vigor and in a few years all the customs houses had been supplied with complete sets of weights and measures, and the standards upon which they were based were practically accepted by congress when it passed the following joint resolution in 1836: "Resolved by the senate and house of representatives of the United States of America in congress assembled, that the secretary of the treasury be, and he hereby is, directed to cause a complete set of all weights and measures adopted as standards and now either made or in progress of manufacture for the use of the several customs houses, and for other purposes, to be delivered to the governor of each state in the Union, or such person as he may appoint for the use of the states, respectively, to the end that a uniform standard of weights and measures may be established throughout the United States." The resolution does not state that the weights and measures in question are adopted by congress, nor does it require the states to recognize them—it merely gives them to the states to be adopted or not as they may see fit. As a matter of fact practically all of the states adopted them, but until very recently little was done to enforce their use, and in many states the original weights and measures supplied by the federal government have been destroyed, lost or stolen.

Such was the state when the bureau of standards was established in 1901. Shortly after its establishment, and in response to complaints from all parts of the country as to the use of fraudulent practices involving weights and measures, a study of the situation was begun. With the exception of Massachusetts and Rhode Island no state had an officer whose main duty it was to enforce such laws as existed, the secretary of state, the state treasurer or some officer of the state university

Our Man in Europe

IT WILL BE of interest to Western fruit growers in general, and operators in Boxed Apples in particular, to learn that Mr. W. T. Seibels, until lately connected in an executive capacity with "The Packer," and who was one of the highest paid writers on marketing subjects in the country, is now in Europe, where he will be located in charge of our foreign apple business. He is actually selling fruit already.

Because of our widened operations it was necessary for us to secure the best talent money could hire to take charge of our export trade. Those who know Mr. Seibels, and he enjoys a wide acquaintance with Western growers and shippers, will readily concede his fitness for the position of Foreign Representative to look after selling apples or other fruits. Not only is he a man of action, but he combines the rare qualities of the practical student of marketing affairs with those of the hustler. For nearly ten years he has been a consistent booster of boxed apples and other Western fruits, and no little of their fame is due to his clever tongue and pen.

Perhaps it would not be out of place to state in this connection that Mr. Seibels is the author of a 300-page book lately published which treats thoroughly of the practical side of marketing. It is called "Produce Markets and Marketing," and is being used as a textbook in several colleges and universities for horticultural and agricultural students.

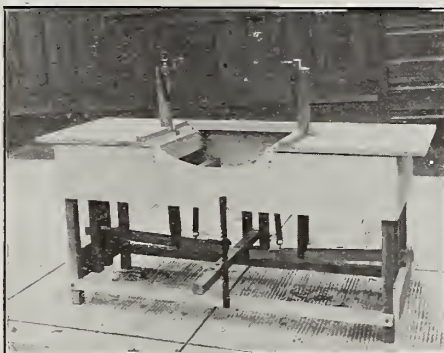
Mr. Seibels' work in the foreign field is supplemental to our selling organization on this side of the water. He will take the same painstaking efforts in distributing abroad which has made "Gibson service" the standard for selling boxed apples and other Western fruits in domestic markets.

By reason of our early entry into the Western fruit industry, and literally helping to nurse it through its infancy and later growth, and because of our long record for satisfactory results to growers and associations whose shipments we've marketed, we feel justified in joining others in saying our service is par excellent, especially with the addition of an export man to our staff whose ability, energy and integrity are well enough known in trade circles to make comment from us unnecessary.

If you are looking for RESULTS in the way of selling your apples or other fruits get in touch with us. We can sell either in this country or abroad to the VERY BEST advantage. Should you prefer to store apples and hold for later sale we can name you the most favorable rates consistent with good service in the West or East, and look after every detail of storing and selling.

Keep us in mind. If you don't need us today you may tomorrow or soon after.

Gibson Fruit Co. 69 West South Water St.
Chicago, Illinois



HOOD RIVER Box Nailing Press

The real original nailing press that helped make Hood River apples famous by eliminating box bruises, is now being manufactured and placed on sale. The most economical, convenient and best nailing press on the market. For particulars and price list write to

W. G. SNOW, Hood River, Oregon

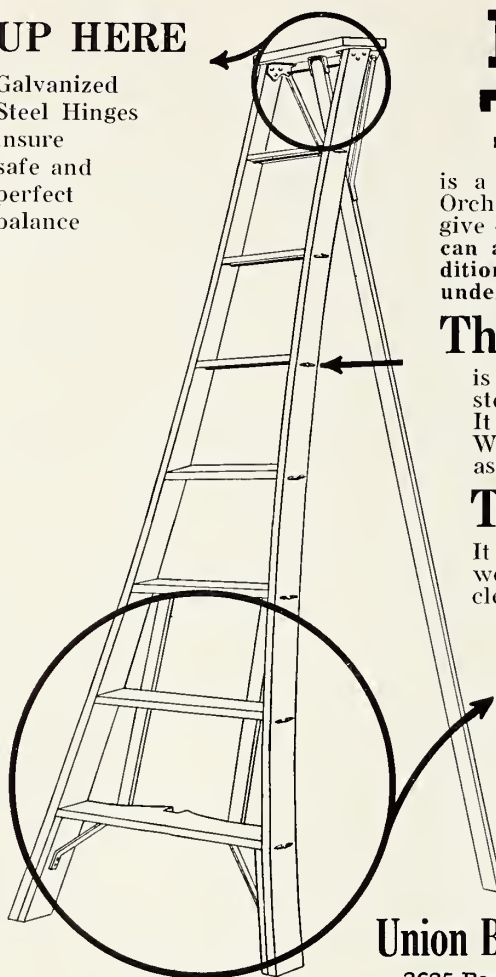
usually being designated by law as the custodian of the state standards. Many of these officials had never seen the standards and did not know that they were responsible for them until their attention was called to the matter. The first step taken by the bureau was to make a compilation of the laws of the different states relating to the subject. This compilation showed that each state has enacted laws without regard to the laws of other states, and, indeed, often in conflict with them. For example, a bushel of cotton seed was legally defined in Georgia as 30 pounds, and in Florida and Alabama as 32 pounds. Apples ranged from 50 pounds per bushel in Wisconsin to 45 pounds in Oregon, and so on. In some states the ton was 2,000 pounds and in others 2,240 pounds.

It would have been worse than useless to attempt to secure from congress the legislation necessary to correct these evils—the public as a whole was little interested in the subject, and without such interest on the part of the public congress could not have been induced to take the matter up. The bureau, therefore, conceived the plan of calling together the state officers who were designated by law as the custodians of the state standards and, by co-operation with them, bringing about uniformity in the state laws and in the machinery for enforcing them. The first conference, which was attended by delegates from only nine states, met in Washington on January 16 and 17, 1905. The benefits of such meetings were so evident that the conference decided to form a permanent organization and to hold a conference each year for the purpose of discussing legislation and other matters related to the inspection of the weights and measures used in trade. In 1907 suggestions for a state law were adopted and at a subsequent meeting a model state law was perfected, and this law, with minor modifications, has been adopted by Vermont, New Jersey, Indiana, Wisconsin and Minnesota, while a large number of other states have enacted weights and measures legislation tending toward uniformity in the standards used in trade.

It therefore appears that so far as intra-state transactions are concerned the standardization of the ordinary weights and measures is in a fair way to be solved. There are, however, a number of special standards which the general public seldom comes in contact with in an important way, but which are widely used in interstate commerce, and need to be standardized. As examples of these units I might mention the barrel, the bale of cotton and hay, the berry box, the grape basket, and so on. The fact that these units were not uniform was of small importance a few years ago, as the trade in which they were used was largely local, but the development of transportation facilities and the introduction of refrigerator cars has vastly increased the amount of shipment of such containers from one section of the country

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to another, and the need for national standards has recently become very pressing. When berries are shipped into Massachusetts the state law require that boxes must hold a full dry quart, while the New York law permits the use of a box of seven per cent less capacity. Within the year Kansas has legalized the liquid quart in the sale of berries, and since those brought into the state from outside must compete with those packed within the state the outside packer has one size for Massachusetts, another for New York and for Kansas still another size fifteen per cent smaller than the standard dry quart. In New York the standard barrel has a capacity of 6,720 cubic inches, or one hundred dry quarts, while in Wisconsin it is 7,056 cubic inches, or one hundred and five quarts. In the number of states where there are no laws these containers may have any capacity.

The simplest and most practicable solution of the problem is for congress to establish standards and to enforce their use in interstate trade. The difficulty, however, is that the matter has been left to the states so long that it would mean a radical change of policy on the part of congress to take up the subject now. It is, therefore, necessary for those interested to convince congress, first, that it has the authority; second, that the problem cannot be solved by the states without the aid of national legislation, and, third, that the matter is important. Some progress has already been made in this direction. A few years ago it was a rare thing to see a bill on the calendar of the house of representatives that referred in any way to weights and measures, and I cannot recall a single instance of a bill of this nature being introduced in the senate prior to 1909. Since then, however, the Lafean bill, to establish standard packages and grades of apples, with which you are no doubt all familiar, barely failed to receive a favorable report from the committee to which it was referred. The failure of this bill was, I believe, due more to the grading feature than to the provisions to fix the dimensions of the barrel and box, though much opposition to the latter came from a few states where a smaller box than that specified by the bill was in use.

During the last session of the previous congress bills to fix the sizes of berry baskets were introduced in both the house and senate, and the same bills were again introduced in the present congress. Also an amendment to the pure food act, which required that the net weight or measure be stamped upon the outside of sealed packages containing food products, was favorably reported to the house by the interstate commerce committee after a full hearing. While none of the bills referred to ever got far, they nevertheless served the very useful purpose of educating members of congress as to the necessity of national legislation. During the discussion of a bill to give the bureau of standards authority to



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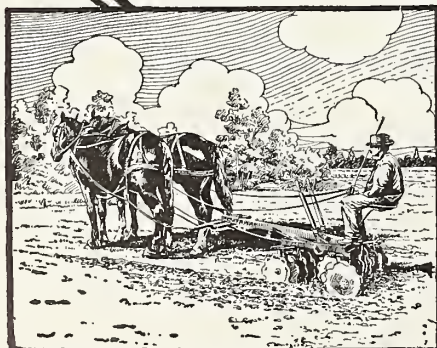
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pass upon types of weighing and measuring devices the question was put to the committee on coinage, weights and measures: "Is the committee ready to recommend national legislation on weights and measures?" After some discussion the committee, by a considerable majority, voted in the affirmative, and the bill under consideration was referred to a sub-committee with instructions to consider and report. This conclusion was reached late in the session, and owing to the many important political questions pressing for action the sub-committee never made a report. While the vote of the full committee did not lead to any definite result it was very significant as indicating what the attitude of congress might be if convinced that national legislation is needed.

It appears to me that the time is now ripe for a unification of all our weights and measures, and it behooves those who have had to contend with the present lack of uniformity to co-operate in securing from congress legislation that will establish the same standards in all parts of the country, and thus do away with the confusion existing at the present time. In the matter of standardization the American manufacturers have for a long time led the world, and in consequence they have been able to compete successfully with the manufacturers of older countries, where labor is cheaper, but where the methods of manufacture are not systematized to the same degree that they are here. Every industry has its problems—the gas industry is interested in the standardization of the cubic foot, the candle power and the heating value of their product; the electrical industry in their particular standards; the automobile manufacturers with standard threads, standard wheels and standard methods of rating the power of their engines, and so on. Many of these standards are settled upon and maintained by common agreement. They lead to greater efficiency and economy, and nothing is gained by departing from them. It is not, therefore, necessary to fix such standards by legislation. The question of weights and measures is quite different—the temptation to buy by one standard and sell by another is as old as trade itself, and consequently the standards have to be established by an authority strong enough to enforce their use. In this country the only authority competent to fix and maintain the standards used in interstate commerce is congress, and therefore those interested in such standards should seek every opportunity to impress upon the members of that body the urgent need for action.

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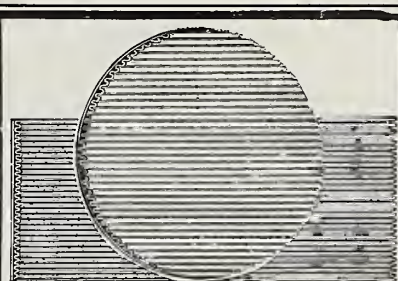
Fairs of the United States and Canada

We print below a list of the principal exhibitions and fairs to be held this fall:

- Sept. 3-7—Maryland State Fair, Timonium, Maryland.
Sept. 5-7—Granger District Fair, Cottage Grove, Oregon.
Sept. 5-15—Santa Clara County Fair, San Jose, California.
Sept. 5-16—Central Canada Exhibition, Ottawa.
Sept. 7-13—Northern Illinois Fair, Streator, Illinois.
Sept. 7-14—Exposition, Everett, Washington.
Sept. 9-13—Kansas State Fair, Topeka, Kansas.
Sept. 9-13—South Dakota State Fair, Huron, S. Dakota.
Sept. 9-14—King County Fair, Seattle, Washington.
Sept. 9-14—Livingston Exposition, Livingston, Montana.
Sept. 9-14—Kentucky State Fair, Louisville, Kentucky.
Sept. 9-14—Clarke County Fair, Vancouver, Washington.
Sept. 9-14—West Michigan State Fair, Grand Rapids.
Sept. 9-14—New York State Fair, Syracuse, New York.
Sept. 10-13—Park County Fair Ass'n, Livingston, Montana.
Sept. 10-14—Wisconsin State Fair, Milwaukee, Wisconsin.
Sept. 11-14—Southern Oregon District Agricultural Society, Eugene, Oregon.
Sept. 11-14—Touche Valley Fair Ass'n, Dayton, Wash.
Sept. 11-14—Multnomah County Fair, Gresham, Oregon.
Sept. 11-14—Union County Fair, La Grande, Oregon.
Sept. 12-16—Clatsop County Fair, Gearhart, Oregon.
Sept. 14-20—Kansas State Fair, Hutchinson, Kansas.
Sept. 14-21—California State Fair, Sacramento.
Sept. 16-21—Northern Montana Fair Ass'n, Great Falls.
Sept. 16-21—Walla Walla Co. Fair, Walla Walla, Wash.
Sept. 16-21—Interstate Livestock Fair, Sioux City, Iowa.
Sept. 16-21—Michigan State Fair, Detroit, Michigan.
Sept. 16-21—Colorado State Fair, Pueblo, Colorado.
Sept. 16-21—Tennessee Fair Ass'n, Nashville, Tennessee.
Sept. 16-21—Vermont Fair Ass'n, White River Junction.
Sept. 18-20—San Luis Valley Fair, Alamosa, Colorado.
Sept. 18-21—Olympic Peninsular Fair, Port Townsend, Washington.
Sept. 18-21—Baker County Fair, Baker, Oregon.
Sept. 19-21—Second Annual Grape Carnival, Kennewick, Washington.
Sept. 21-25—Bonner County Fair, Sand Point, Idaho.
Sept. 22-27—Latah County Fair, Moscow, Idaho.
Sept. 23-28—Washington State Fair, North Yakima, Wash.
Sept. 23-28—The Round Up, Pendleton, Oregon.
Sept. 23-28—Montana State Fair, Helena, Montana.
Sept. 23-28—Interstate Livestock Show, St. Joseph, Mo.
Sept. 23-28—Tri-State Fair, Memphis, Tennessee.
Sept. 23-28—Colorado Interstate Fair, Denver, Colorado.
Sept. 24-28—Malheur Agricultural Ass'n, Ontario, Oregon.
Sept. 24-27—Harvest Carnival, Tekoa, Washington.
Sept. 24-27—Wyoming State Fair, Douglas, Wyoming.
Sept. 24-27—Interstate Fair, LaCrosse, Wisconsin.
Sept. 24-Oct. 5—Oklahoma State Fair, Oklahoma City.
Sept. 25-28—Clackamas County Fair, Canby, Oregon.
Sept. 25-28—So. Oregon District Agric. Fair, Ashland.
Sept. 26-28—Pumpkin Show, Junction City, Oregon.
Sept. 26-28—Raymond, Washington.
Sept. 28-Oct. 4—Missouri State Fair, Sedalia, Missouri.
Sept. 30-Oct. 4—Interstate Fair, Trenton, New Jersey.
Sept. 30-Oct. 4—Rogue River Valley Fair Ass'n, Medford, Oregon.
Sept. 30-Oct. 5—Spokane Interstate Fair, Spokane, Wash.
Sept. 30-Oct. 5—Southwest Washington Fair, Centralia.
Sept. 30-Oct. 3—Twentieth National Irrigation Congress, Salt Lake City, Utah.
Sept. 30-Oct. 5—Utah State Fair, Salt Lake City, Utah.
Sept. 30-Oct. 5—Fresno Exhibition and Races, Fresno, Cal.
Oct. 1-4—Canyon County Fair, Caldwell, Idaho.
Oct. 1-4—Brockton Fair and Horse Show, Brockton, Mass.
Oct. 1-4—Second East Oregon District Agricultural Society, The Dalles, Oregon.
Oct. 1-5—Puyallup Valley Fair, Puyallup, Washington.
Oct. 3-12—Alabama State Fair, Birmingham, Alabama.
Oct. 4-12—Illinois State Fair, Springfield, Illinois.
Oct. 7-12—Idaho Inter-Mountain Fair, Boise, Idaho.
Oct. 7-12—Lewiston-Clarkston Fair, Lewiston, Idaho.
Oct. 7-12—Hanford Exhibition, Hanford, California.
Oct. 7-12—American Royal Livestock Show, Kansas City.
Oct. 7-12—Muskogee Fair Ass'n, Muskogee, Oklahoma.
Oct. 8-10—Stevens County Fair Ass'n, Colville, Wash.
Oct. 8-11—Flathead County Fair, Kalispell, Montana.
Oct. 9-11—The Eastern Oregon Agricultural Society, Mayville, Oregon.
Oct. 12-27—Texas State Fair, Dallas, Texas.
Oct. 14-19—Whitman County Fair, Colfax, Washington.
Oct. 14-19—Los Angeles Exhibition, Los Angeles, Cal.
Oct. 14-19—Great Northern Carolina State Fair, Raleigh.
Oct. 14-19—Northwestern Livestock Show, South St. Paul, Minn.
Oct. 14-21—Los Angeles Harness Horse Ass'n, Los Angeles.
Oct. 15-17—Tri-County Fair, Concord, Ore.
Oct. 15-25—Georgia State Fair, Macon, Georgia.
Oct. 16-19—Crook County Fair, Prineville, Oregon.
Oct. 21-26—San Diego Exhibition, San Diego, California.
Oct. 21-26—Mississippi State Fair, Jackson, Mississippi.
Oct. 17-26—International Dry Farming Congress, Lethbridge, Alberta.
Oct. 30-Nov. 6—Louisiana State Fair, Shreveport, La.
Nov. 4-9—Arizona State Fair, Phoenix, Arizona.
Nov. 4-9—Indiana Apple Show, Indianapolis, Indiana.
Nov. 12-23—Northwest Land Products Show, Minneapolis.
Nov. 15-Dec. 7—New York Land Show, New York City.
Nov. 18-23—Northwest Land Products Show, Portland.
Nov. 23-Dec. 8—U. S. Land and Irrig. Exposition, Chicago.
Nov. 30-Dec. 8—International Livestock Expo., Chicago.
Dec. 9-13—Northwest Fair Stock Show, Lewiston, Idaho.
Jan. 13-15-18—Western Fruit Jobbers' Ass'n, New Orleans.

BRITISH COLUMBIA FALL FAIRS FOR 1912

- Sept. 18-20—Kamloops.
Sept. 23-27—Grand Forks, Agr. Ass'n, Grand Forks.
Sept. 23-24—Vernon.
Sept. 23-25—Nelson Fruit Fair, Nelson.
Sept. 24-28—Provincial Fair, Victoria.
Sept. 25—Nicola.
Sept. 26-27—Kelowna.
Sept. 27-28—Salmon Arm.
Sept. 28—Penticton.
Oct. 1-5—Provincial Exhibition, New Westminster.
Oct. 3-4—Vernon Horse Show, Vernon.
Oct. 4-5—Arrow Lakes.
Oct. 8-10—Revelstoke.
Oct. 16-17—Armstrong.
Oct. 22-23—Okanagan Central Fruit Show, Vernon.
Oct. 30-Nov. 1—Summerland.



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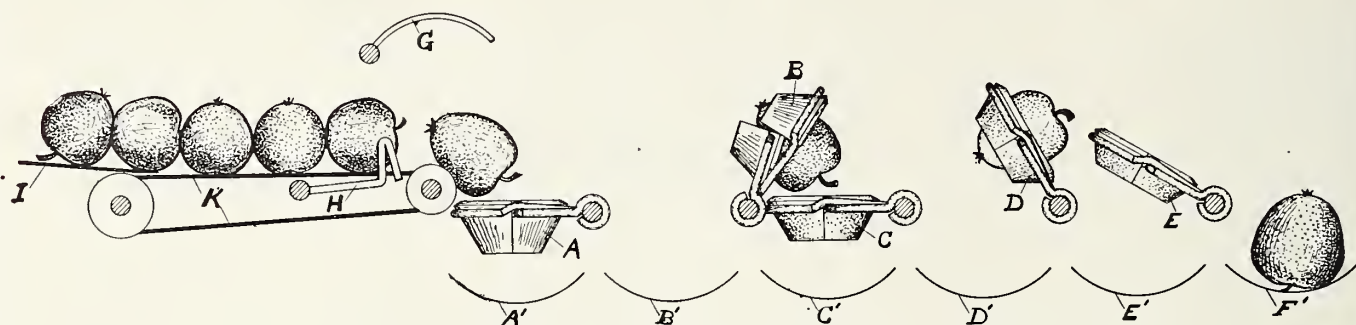
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Members' Relation to Growers' and Shippers' Organizations

John Denny, Chicago, at Convention of Western Fruit Jobbers, St. Louis

IN order to properly consider this subject it would probably be well to start from the original fruit and produce jobber. As you are aware, in times not so very far remote, possibly in the recollection of some of you, the cities were supplied to a great extent with fruits and vegetables from nearby farms. If the crop was short or the supply had been practically exhausted the people paid extreme prices or went without it entirely. A farmer or grower at that time raised and sold his own truck, going from door to door and selling such goods as he had to offer.

At such times when his sweet corn or early potatoes were ready to move, his neighbor might have a few apples or a few onions or some other vegetable that was not sufficient to warrant him making the trip to town to dispose of, hence he sold it to the one who had the most. This, I believe, was the beginning of the jobbing business. When he would make the rounds of his customers probably he would occasionally find that the housewife would not be in, or he would find that he did not have sufficient truck ready to market at that particular time, and he would take

it to the corner grocery and sell it to him at such a price that he could again sell it to the consumer at a margin of profit. The corner grocer would find that some particular line of vegetables would have a more active demand than he had anticipated and would soon be depleted. Needing this particular line at once he would be willing to pay a little extra cost in order to secure it, then the demand for the jobber, who would be required to carry stocks of such goods to supply this demand at all times. The producer gradually learned that the jobber could sell and parcel

out to the retailer on a more economical basis than he could afford to do it himself. This gradually developed into the system of marketing that we have today. Mr. Jobber was absolutely dependent on Mr. Grower and Retailer for his business, likewise each on the other. If Mr. Jobber refused to pay the grower a reasonable price for his product or charged an excessive price to the retailer he weakened each or both of them, thereby weakening himself and bringing his final destruction. Both jobber, retailer and producer were created by a natural evolution, for the reason that the business could be handled in a more economical manner than by any other method yet devised, or in all probability that will be devised.

Our condition and situation today, of course, is more complicated, for the reason that in olden times transportation facilities were such that it was very hard to move this perishable goods from one end of the country to the other, and when one section of the country was without any particular line of fruits or vegetables they simply went without them. Prices might be excessively high in one place and extremely low in another. Producer, jobber and retailer are today more dependent on one another than at any other time during the history of the business. Our whole interests are entwined and intermingled with one another. We cannot possibly benefit ourselves without like benefit to the others, likewise we cannot injure one without injury to ourselves; hence there is only one policy to pursue, and that is absolutely equitable dealings, one with the other. We occasionally hear of some of our fellows bragging about a good trade they made, about something they had gotten cheap from some grower, or we hear of some grower telling how he got the best of some trade in selling some buyer a lump orchard and the buyer only got five hundred barrels of apples where he expected a thousand, and laughing over it as a good joke. If they only knew, these little advantages are only temporary and they reflect doubly on the one securing them. If it is the grower he soon gets the reputation of "sticking" everybody he trades with and the buyers do not care to do business with him, and he soon has to sell his goods for less than his neighbors. If it is the buyer he soon gets the reputation of being a trickster and nobody cares to trade with him. I am very glad to say that the plane of ethics, not only in the fruit and produce line but every other line, has shown marked improvement, for the reason that the business man is realizing that it is the only policy that pays.

One of the principal objects in the original formation of this organization was to correct the railroad abuses that existed at that time, particularly in the refrigerator car lines, and this organization probably had more to do in starting and directing public attention to the various railroad abuses that pre-

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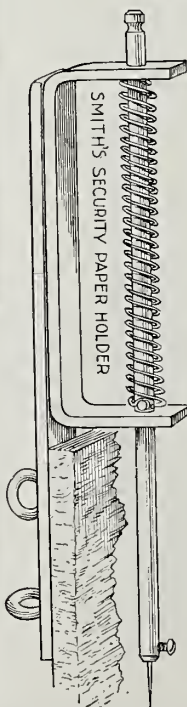
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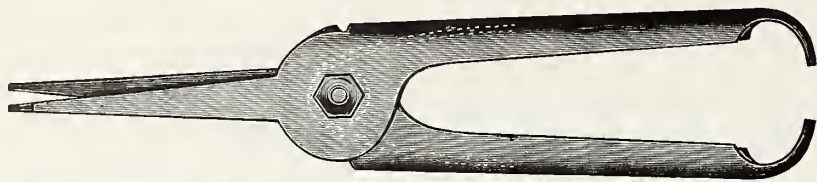
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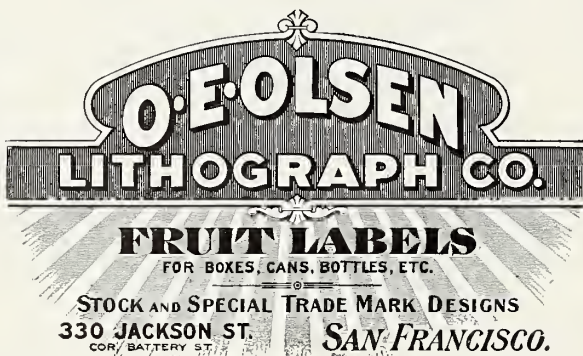


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Affiliated with THE STATE BOARD OF HEALTH, offers to parents
free of charge the following circulars on

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- CIRCULAR No. 3—When and How to Tell the Children.
- CIRCULAR No. 4—A Plain Talk with Girls About Their Health and Physical Development.
- CIRCULAR No. 5—Books for Use in the Family on Sex Education.
- CIRCULAR No. 7—A Plain Talk with Younger Boys (boys 9 to 13).
- CIRCULAR No. 8—A Plain Talk with Older Boys (boys 13 to 18).
- CIRCULAR No. 9—Sex Hygiene for Young Men.
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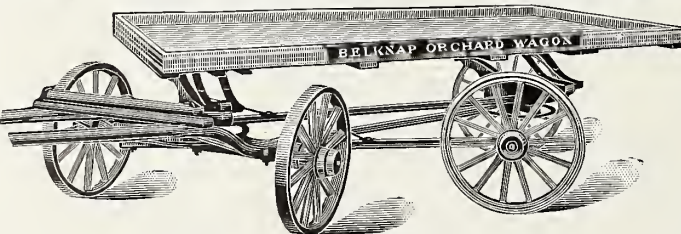
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doubt it, unless you
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Get our circular and
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WHEN WRITING ADVERTISERS MENTION BETTER FRUIT

vailed, and no doubt the organization is to be credited or charged with the starting of the railroad agitation that existed for the past several years, and the results accomplished have been of inestimable value to everyone connected with the fruit business. At this time the general policy of the railroads, stated in a few words, was "the public be damned." Since then a wonderful change has taken place. The railroads today realize that their prosperity depends upon the prosperity of the people whom they serve, and with few exceptions they are willing to co-operate to every reasonable extent. From our experience I believe the policy of the railroad is to treat the shipper exactly as one business man would treat another with whom he was doing business. While there naturally is, and undoubtedly always will be, a difference in opinion between the shipper and the railroad as to what is a reasonable rate, this is only to be expected, as there is frequently a difference of opinion between a buyer and seller as to the value of an article for which they are trading. The old style railroad man has passed away, and in his place has risen one with broader, more comprehensive, more equitable and one more willing to consider the interests of the community, thereby resulting directly to the benefit of his company.

Do not misunderstand me and think this is a eulogy on the railroad management, but I merely wanted to call your attention to some of the principal efforts of this organization in the past, thereby showing the benefits derived. The jobber has probably benefited directly in this least of all. If Mr. Smith or Mr. Jones buys a car of goods in Missouri at \$1 per package and the freight is 20 cents per package, costing him \$1.20 delivered, he sells it on a basis of that cost. If the freight cost him thirty cents per package he sells it and gets his profit on the higher freight rate. If the goods are shipped under refrigeration, and one car in three arrives in bad condition, he merely figures he is entitled to a greater margin than though he would be reasonably sure of the goods always arriving in good condition; hence you will see that the producer and the consumer are the ones who benefit most by the improved railroad conditions. The jobber is only benefited by the increased production and consumption of the articles handled and his possibility of making more profit on account of the increased volume.

We hear a great hew and cry at this time, particularly in the press of the country, as to the high cost of living. There is really no such thing; it is the cost of high living. There has never been in the history of the business so great a difference in value of the grades of various articles of food. Fruits and produce of medium or ordinary grades are selling from twenty-five to fifty per cent less than a strictly number one article, and what is known as a strictly number one article today would have been an almost unheard of thing a gen-

eration ago. The people were not so critical in their purchases and the expense of producing this high grade is much greater than where a medium grade sufficed, hence it is unfair to go by statistics in any line of foodstuffs; and in addition to that the people today insist on purchasing in small quantities and in packages; in fact partially cooked and prepared and delivered, almost on the table. The expense, the labor and work of bringing the produce from the farm to the consumer, of the grade and in the manner in which he demands it, is a very expensive proposition, and as long as the American public insists on this kind of service it is bound to be expensive.

I think one of the greatest benefits this association could be would be to offset this agitation that is going the rounds at the present time. Any of you who have had experience in selling goods for a number of years will bear me out in saying that every merchant to whom you sell becomes more critical in his purchases daily, weekly and yearly simply for the reason that his trade demands it. In any of the principal markets the value of apples, for instance, between a strictly number one and a good serviceable article at the present time is \$2 per barrel in many of the standard varieties. We are selling Greening apples on our market today, the strictly number one grade, at \$3.50 per barrel. A common or scalded Greening is worth \$1.50 to \$1.75. For every purpose the cheaper apple is the best except for appearance. They are just as good for cooking and better for eating, because they are riper. One must necessarily retail at forty to fifty cents per peck, while the other can be retailed profitably at twenty; and this is not an exception. You will find it in every line of fruits and vegetables that you are handling.

Every four-flushing politician and would-be statesman is trying to spring some panacea that will make his constituents believe that he is lying awake nights on the job to correct this terrible bugaboo of high cost of living, and ninety-nine cases out of a hundred, yes nine hundred and ninety-nine out of a thousand, his efforts have the opposite effect, but he temporarily pulls the wool over the eyes of the dear public and he and they, of course, are satisfied. An instance of this kind—an ordinance has recently been enacted in our city compelling the sale of all fruits and vegetables by the pound to the consumer. How anyone can possibly imagine this is going to reduce the margins I cannot understand, as it only makes it more expensive for the retailer and the dealer to operate, and it is bound to be paid by the consumer or the producer.

It is needless to argue here on excessive margins made by the jobbers, as we all know that competition is such, regardless of what might be our desires, that the margins are at the very lowest minimum on which we could possibly exist, as each and every one of us is striving to do the most



The National Insecticide Law demands that all Arsenate of Lead shall contain—

Arsenic Oxide	- - - -	Not less than 12½ %
Water Soluble Arsenic	- - - -	Not over ¾ of 1 %
Moisture	- - - -	Not over 50 %

And beyond these chemical requirements the Law is not interested.

The fact that all makers of Arsenate of Lead are required to come within the above restrictions does not by any means put the products of all manufacturers on an equality. The Law simply states the limit within which one can legally sell a product.

In the eyes of the Law, all men who do not break the Law are equal, but this does not imply that all men who are out of jail are equally high-class citizens.

The efficiency of and satisfaction received from the use of Arsenate of Lead are largely owing to its suspension, easy mixing and fast sticking qualities.

The Law does not attempt to regulate its manufacture in this respect, but these qualities, added to its killing power, make up the true value of an Arsenate of Lead.

The uniformity of the Grasselli Arsenate of Lead in all the above essentials is well known to the fruitgrowers of the United States, and it is the standard adopted by the Hood River Apple Growers' Union, Hood River; Rogue River Fruit & Produce Association, Medford; Yakima County Horticultural Union, North Yakima, and many other associations throughout the Northwest.

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GET AWAY from the cold winters, hot summers, tornadoes, sunstrokes, blizzards, electrical storms, to a place where they do not occur.

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ALL GRADES

Pear Seedlings—French (American-Grown and Imported)
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We also import large quantities of Ornamental Tree Seedlings,
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Submit list for prices, naming amounts, grades, etc

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Royal Ann, Bing and Lambert cherry trees; Spitzenberg and
Newtown apple trees; Bartlett, Anjou and Comice pears, and
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That Bring Quick, Heavy and Positive Results

The western section of Oregon where our stock is grown has no equal, considering soil
and climatic conditions. We offer a whole-root, non-irrigated tree with a root system that
produces what we say above. It is root system that counts with the young tree, and ours
make a remarkable growth in irrigated or non-irrigated sections.

Our Stock Spells Success in Every Locality

Our small fruits are large, thrifty, well-rooted transplants. For quick results this is
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We have a good stock, and they are fine, vigorous trees. Orders should come in
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Live salesmen can make money selling our stock

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We offer for fall and spring 1912-13: Apple, pear, cherry, peach, apricots, plums and
prunes of the leading varieties adapted to this locality. These are all grown on No. 1
whole roots from buds and scions selected from the best bearing trees in Hood River,
hence we are in a position to not only guarantee our trees true-to-name but of the best
bearing strains. Commercial orchard plantings our specialty.

If interested, write us; we have what you want.

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business possible at the least expense, and I do not think there is any danger of any government investigation of the fruit jobbers on account of excessive margins. We are finding, however, an inclination among the retailers, particularly in our market, of a desire to have their purchases delivered, and should this become general our margins will necessarily have to increase in order to offset this additional cost.

Generally speaking, I do not think the retailer's margins are excessive, considering the manner in which he must necessarily handle his business. Not so many years ago the housewife anticipated her wants, went to the market or grocery two or three times a week with her basket, selected, purchased and brought home what she required, except possibly the very heavy purchases such as flour, sugar, etc.; and these were purchased once or twice a month and delivered. Today Mrs. Jones or Mrs. Smith, in the morning, finds when she is ready to bake a cake that she needs two eggs. She will immediately telephone the grocer to send a half dozen eggs, or possibly the two that she requires—must have them in a hurry. Mr. Groceryman, of course, rushes his wagon over with the purchase. Half an hour afterward she finds she is short a cake of yeast. Mr. Groceryman has another rush call, delivers the cake of yeast, and so on during the day, a half pound of butter or something else of that kind, or else they will barely order enough for one meal and the next one means another purchase, or she will order a half peck of apples and if two or three of them do not happen to be of as nice a color or as nice size, or as shapely as she wished, she will ring up on the phone and make a strong complaint that the apples were not as good as what his competitor, Mr. Smith, had sent at the time she ordered before. They rarely kick about the price they are charged. If so, Mr. Groceryman says that Mr. Jobber has cornered all the apples and they make him pay whatever they want to, which, of course, relieves the mind of Mrs. Consumer, and the next time Mr. Groceryman goes to the market he is very critical about his purchases of apples, as he has in mind the complaint of Mrs. Consumer, and he is going to buy the best fruit he can possibly secure, and as there is comparatively little of this grade of fruit the price on it is necessarily high.

In olden days when Mrs. Housewife went to the market herself to do the purchasing she looked over and priced the various varieties and grades, and if she found one variety of apples selling at fifty cents per peck and another grade or variety that was almost as good for twenty cents she almost invariably bought the twenty-cent grade, and the fifty-cent grade was neglected, hence Mr. Groceryman was not so overly anxious to secure the very finest thing on the market, and the demand thereby being greater on medium grades brought the prices

nearer together. I firmly believe this is the explanation of the so-called high cost of living, and it will be impossible for anyone to correct the conditions and reduce the cost of living until the people are willing to do their purchasing in a different manner; and I think a great deal of good could be done by this association by inaugurating some kind of publicity campaign that would show the people the error of their ways, as merchandising in this manner is expensive and must be settled by the consumer.

The intrinsic value of any food product at the grower's farm or orchard is practically nothing. In order to complete the production it must be placed at the consumer's table. The grower, jobber and retailer are each a step to its final production, and any action or act of one or the other that is not perfectly fair, just and equitable is a detriment to all, as we are together only as strong as our weakest part. Anything in the way of control of a crop, whether by grower or jobber, is a detriment to all; anything that tends to be a monopoly or a combination cannot help but be detrimental, as we are all human, and we are inclined to act arbitrarily for our own benefit if we are placed in such a position and overlook the consideration due to others. In conclusion, I believe that our relations with growers and shippers, whether individually or associations, should at all times be viewed from a broad and liberal standpoint, and we should give the same treatment as we would desire to receive were our positions reversed.

Finding Markets

Nevertheless, it is a refreshing thing for the farmer that his interests are becoming so dear to the men who shape the political destinies of the country. It is fallacious to assert that the limit of production has been reached in this country. Under proper protection, with ordinary safeguards, and with such governmental assistance as is wise and proper, this country can export potatoes, instead of importing them. It can sell its pork, and wheat, and hops, and butter, to all the nations of the world. It can ship its apples, and pears, and oranges, and figs, and dates, to the very lands where such things have had monopoly of the markets heretofore. It can sell its wines in France, its beef in England, its lemons in Spain and Sicily, its olive oil in all the capitals of Europe, and its beer on the Baltic and Danube. But first it should cultivate the markets right at the farm gates, and help the producer to get into closer touch with the ultimate consumer.—F. J. Dyer, Washington, D. C.

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East or West that has been giving better service to its patrons than ours. In the beginning our business was largely limited to supplying the heavy local demand in the famous Wenatchee district. Our trade has grown and expanded until it now covers the entire Northwest, including British Columbia. Last season we shipped stock to nearly every state in the Union.

We grow a large and complete line of nursery stock, including fruit, shade and nut trees, ornamental shrubs, vines, roses, etc., and our customers get what they order.

Columbia & Okanogan Nursery Co.

Wholesale and Retail

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SHIPPERS IT IS TIME TO GET READY FOR FALL SHIPPING

One of the first things the successful shipper does is to make up his "mailing list" of firms, such as receivers to whom he expects to sell, and brokers through whom he expects to sell, that he may be prepared to quote these parties regularly from time to time during the season without having to stop and look them up.

Now, it is of the utmost importance that no "crooked" dealer or firm of doubtful financial or bad business standing should be included in this list. If the quotation or mailing list is composed entirely of reliable commission houses and brokers to start with, one of the greatest causes of future trouble will have been removed.

What guide are you going to use in making up this list? What better guide is there than the Blue Book furnished by that great National Organization called the Produce Reporter Company? The ratings assigned to dealers, and the clear and simple explanation of the specialties handled by these dealers and the volume of their annual business, enables any intelligent shipper to immediately check up in the Blue Book such reliable firms as will be interested in what he has to offer. In fact, many shippers simply check up the Blue Book and do not take off a mailing list—they use these checks as the mailing list. Here is a great saving right on the start in the compiling of a reliable list, probably equal to the entire cost of the Service if the shipper is going to make up a list of any size and importance, and why shouldn't the shippers do this?

It costs this Organization approximately \$150,000.00 a year to furnish this book to the Members, because practically the results of the entire cost of the business are boiled down and embodied in this Credit Book—that is to say, every complaint, every collection, every adjustment, every item effecting credits or business standing of firms, in this line in the United States, that is handled by the Adjusting, Collecting, Reporting, Law, Arbitrating and other departments that has any general value to the entire Membership is really included in the book once a year, and this is supplemented every week with the current history of the trade as they make it, right at the time when you need it, in the "Weekly Credit Sheets." "Special Reports" are also furnished, but the "Blue Book" is the backbone of the Service, and for your present consideration it is this, and its benefits to you, in preparing for the coming season, that are especially emphasized.

Please write us what you are going to ship this year, how much, and what you have been; your previous methods of selling and what, if any, plans you have for the coming season. We answer every year a great many inquiries from enterprising, up-to-date growers and shippers who wish to know about our system, and how they can make better, safer and more profitable disposition of their products.

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Patented by A. I. Mason of Hood River, Oregon, and manufactured by CASCADE MILLS. Price \$25.00, with top cabinet for holding cardboard tops, strips, stencils, etc., or \$18.50 without top cabinet.

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R. B. BRAGG, Proprietor, Hood River, Oregon



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A COLD STORAGE PLANT, MODERN THROUGHOUT,
AT THIRD AND HOYT STREETS, PORTLAND, OREGON.

Fruit growers or apple growers and dealers of the Western markets in and around Portland, who have watched the markets closely for the past few years, have learned that in the spring there is always a good demand for apples, and that they usually bring good prices if they are in good condition. There is only one way to keep them in good condition for spring consumption, and that is to put them in cold storage.

We offer the best of cold storage facilities in the city of Portland and solicit correspondence from all the associations and fruit growers in general who want to store fruit in the fall or early winter to be used in the spring.

Write us and we will give you further particulars.

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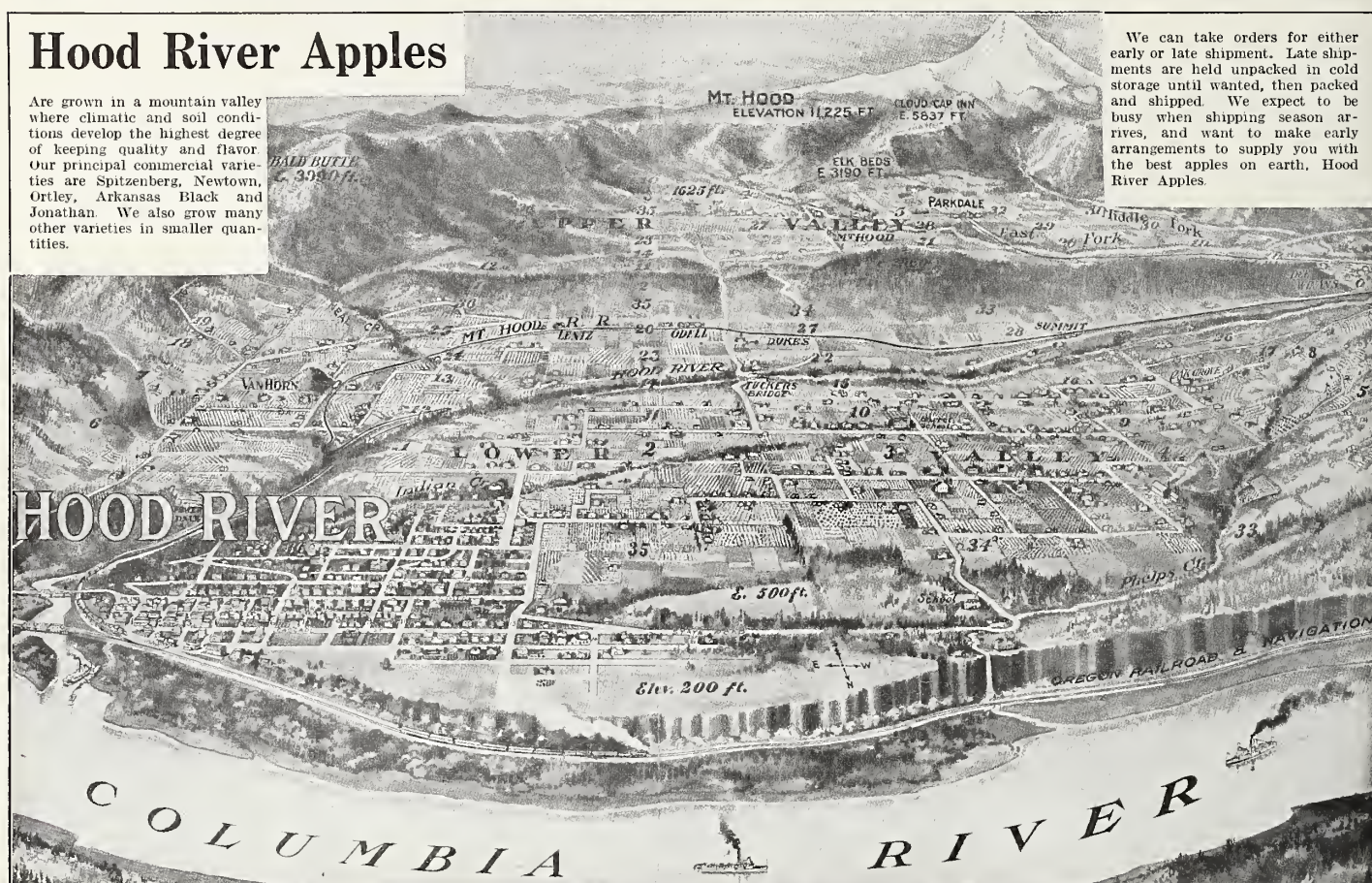
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DAVIDSON FRUIT CO., HOOD RIVER, OREGON

Hood River Apples

Are grown in a mountain valley where climatic and soil conditions develop the highest degree of keeping quality and flavor. Our principal commercial varieties are Spitzenberg, Newtown, Ortley, Arkansas Black and Jonathan. We also grow many other varieties in smaller quantities.

We can take orders for either early or late shipment. Late shipments are held unpacked in cold storage until wanted, then packed and shipped. We expect to be busy when shipping season arrives, and want to make early arrangements to supply you with the best apples on earth, Hood River Apples.



Producers' Organization and Marketing Agencies

I. M. Fleming, of Georgia Fruit Exchange, before National League of Commission Merchants' Convention, Indianapolis

A WIDE field is covered by this subject. As a matter of fact it should cover and include practically every producing citizen of these United States of ours, and if we are not producers of some commodity we are not fulfilling a mission in life that is assigned to every man, and it naturally follows that if a man does not fulfill his mission in life he may properly be classed among that large army of "undesirable citizens" who help to make abnormal conditions which follow when production is not in proper proportion to consumption. In treating the subject selected we will deal with that class of organizations we are most concerned with, namely, that of the fruit and truck grower, and the point in question is, what should be the relation between the producer on the one hand and the market agency, which stands between him and the consumer, on the other?

Before undertaking to define this relation it would be well to go somewhat into the early stages of the question from both sides. Well within the early business experience of the majority of those present it can be recalled that the growing of fruit and truck for commercial purposes was only having its beginning. Shipments to the markets were confined to small lots, not sufficient in volume for carload movement, and the radius of the markets was hardly beyond the horizon of the producers' vision. In less than one generation the industry has grown to such enormous proportions that today almost every possible commodity to tempt the palate of the most fastidious is available, practically in all markets and at all times of the year, in and out of season.

When you consider this tremendous increase in product, which must find the consumer, you cannot but picture, in the mind's eye, some problems of adjustment necessary, and of foremost importance the problem of marketing stands out. If the States of California, with her citrus and deciduous crops; Washington and Oregon, with their apples; Colorado, with her apples, pears, peaches and cantaloupes; Texas,

with her onions and deciduous fruits; Florida, with her vegetables and citrus crop; Georgia, with her peaches and watermelons, and North Carolina, with her berries, and in fact almost every state in the Union were dependent on their home market, what would become of the overflow? Further, if the individual in each section of these states had to solve this problem alone what result could he expect when every state and section is waking up to the fact that they can produce everything that any other section can?

The successful growing of a crop to maturity and the arrival of an orchard at the stage of bearing brings the owner face to face with possibly his greatest difficulty, for in the solution of the transportation and market questions lie the results of his investment. Where would the producer of California have been today if he had continued his efforts to solve these ques-

POSITION WANTED

By an educated horticulturist of energy and ability, with a lifetime experience in the orchard. L. B. ZELL, 509 N. 3, Walla Walla, Wash.

A FINE CHANCE

To get experienced man (horticultural graduate) to develop large orchard tracts on salary or profit-sharing basis. Splendid references. Box 174, Forest Grove, Oregon.

Thirty-Four Years' Experience

Growing nursery stock True-to-Name, which won our reputation. We have a complete line of nursery stock from which to choose. Our customers are guaranteed entire satisfaction. As usual we will have a splendid lot of

Apple, Pear, Cherry Peach, Plum and Prune

Also a general assortment of Shade and Ornamental Stock. We will be pleased to figure with prospective planters of commercial pear orchards in Bartlett and Anjou. Write for new descriptive catalog. A postal brings it.

Milton Nursery Company

A. MILLER & SONS
Incorporators
MILTON, OREGON

We are now selling tracts of 5 acres or more in our final and greatest planting at Dufur, Wasco County, Oregon.

5,000 ACRES All in Apples

Over 3,000 acres of it has gone, mostly to Eastern people. The remainder will be gone by spring.

We plant and develop for five years, guaranteeing to turn over to you a full set, perfectly conditioned commercial orchard. At the expiration of the five years we will continue the care of your orchard for you, if desired, for actual cost, plus 10 per cent.

Planting and care is under supervision of the

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Spalding Building, Portland, Oregon
The largest and most experienced planters in the Pacific Northwest

We will be glad to meet personally, or to hear by mail, from anyone considering the purchase of an apple orchard or apple land. On account of the bigness of the project, everything is done on a wholesale basis and prices for our tracts are proportionately lower. Reasonable terms. All our purchasers are high class people. No others wanted.

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Portland, Oregon
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tions single handed? It was through their organizations that they were able to induce the trunk lines to grant better facilities and give them schedules for placing their products in the East. It is known to be a fact that during the early history of the citrus business in California the transportation companies, as well as the private car lines, encouraged in every way the forming of associations of shippers in order that contracts for competitive traffic might be made with them instead of having to go to the individual shipper. These local associations gradually grew until they became a power for the assistance not only of the railroads but of themselves. They have found out through the necessary employment of high-class talent from the ranks of the legal and transportation professions the existence of innumerable evils necessary to be wiped out. They used diplomacy and persuasion to the limit, and when these failed they invoked the aid of the law through the Interstate Commerce Commission.

The transportation companies, therefore, helped to create the machinery which had to be turned against them, but they have only themselves to blame, for if they would have listened to reason many of the clashes which have come could have been avoided, and the unfriendly relations existing today between the public and the common carriers might have been avoided. To go briefly into detail, the system of reconsigning fruit now enjoyed by California, under which the markets are grouped in certain very wide territory, on the same rate basis, in such a way that a train of fruit starting from California may eventually be distributed to every large market intermediate to the Atlantic seaboard at practically the same rate after passing the Mississippi River. The pre-cooling experiments, which eventually resulted in a practical system now in use, were also made possible by organization. By co-operative organization the expenses of maintaining and carrying on litigation, when needed, fall very lightly on the individual when co-operating, but would be prohibitive if attempted as an individual.

You can measure the success of almost any section by the transportation facilities they enjoy, and you will never find proper facilities where there is no recognized medium of intercourse between the shipper and his transportation company. However, it does not follow inversely that where the organization exists today that the transportation facilities have been perfected. The shippers' organization fills this requirement, and you can in a moment see where the absence of the organization is evident by the conditions that exist as to transportation. Had Texas, Florida, Georgia, North Carolina, New York, Michigan and other states too numerous to mention undertaken fifteen years ago the same organization methods that California adopted there would have been vastly different conditions existing today. We would have

MYERS SPRAY PUMPS ALL KINDS

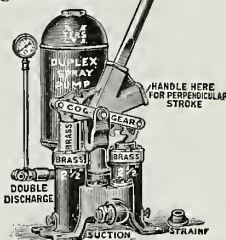
Nozzles, Fittings, Etc.

Take off your hat to the Myers!
BEST PUMP ON EARTH.

Figure 632



Figure 1490



We manufacture Spray Pumps for every need from the small hand and bucket pumps to the large power outfits.

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Red Cross
Dynamite

Stops First Year Losses.

Speeds Up Development
One to Two Years.Improves Quantity,
Color and Quality of Fruit.Planted in
Dynamited hole
Photographed
from lifePlanted in
Spade-dug hole
Photographed
from life

The illustrations herewith are correct reproductions of photos of two-year old Bing Cherry trees planted same day out of same shipment. Similar results have been obtained all over the country. The root diagrams show the reason. You can't afford to plant trees in spaded holes.

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To learn how progressive farmers are using dynamite for removing stumps and boulders, planting and cultivating fruit trees, regenerating barren soil, ditching, draining, excavating and road-making, ask for "Tree Planting Booklet, No 338"

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Pioneer Powder Makers of America

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Addresses of experienced agricultural blasters furnished on request if desired.

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CHERRY CITY NURSERIES

We grow a complete line of fruit and ornamental stock. We select our buds and scions from choice bearing trees. We exercise care in keeping our stock true to name. We ship our trees properly graded. We quote prices that are right. We have pleased others; we can please you. Give us a trial.

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Rooms 1 and 2 Lauterman Building

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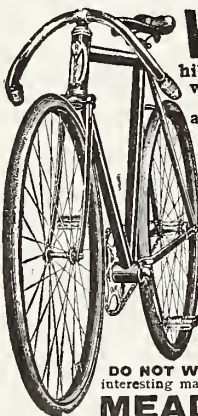
QUAKER NURSERIES APPLES, PEARS, PRUNES
PEACHES, APRICOTS

and all other standard kinds and varieties of fruits, berries, ornamentals, etc., are now coming on in our nursery at such a rate as to insure good, strong, healthy stock. We have more and larger orders on our books to date than we have ever had before. Why? Because people demand the best. Try once the "Quaker Trees" and you will have no other. Our painstaking methods, careful spraying, constant cultivation cannot help but produce clean, healthy stock. All stock is under the direct supervision of the proprietor, who has had thirty-five years of experience in the nursery business. If you want healthy, well matured trees, free from disease, etc., drop us a line or call and see us.

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hibit a sample 1912 Model "Ranger" bicycle furnished by us. Our agents everywhere are making money fast. Write at once for full particulars and special offer.

NO MONEY REQUIRED until you receive and approve of your bicycle. We ship to anyone, anywhere in the U. S. without a cent deposit in advance, *prepay freight*, and allow **TEN DAYS' FREE TRIAL** during which time you may ride the bicycle and put it to any test you wish. If you are then not perfectly satisfied or do not wish to keep the bicycle you may ship it back to us at our expense and *you will not be out one cent.*

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YOU WILL BE ASTONISHED when you receive our beautiful catalogue and study our superb models at the *wonderful low prices* we can make you. We sell the highest grade bicycles at lower prices than any other factory. We are satisfied with \$1.00 profit above factory cost. **BICYCLE DEALERS**, you can sell our bicycles under your own name plate at double our prices. Orders filled the day received.

SECOND HAND BICYCLES—a limited number taken in trade by our Chicago retail stores will be closed out at once, at \$3 to \$8 each. Descriptive bargain list mailed free.

TIRES, COASTER BRAKE and everything in the bicycle line at half usual prices. **DO NOT WAIT**—but write today for our *Large Catalogue* beautifully illustrated and containing a great fund of interesting matter and useful information. It only costs a postal to get everything. **Write it now.**

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ORCHARDS
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GOOD

Six years ago one-half the trees in the orchard of the Fairview Orchard Company, Kearneysville, W. Va., were tagged by the Inspector, who reported it the worst scale-infected orchard he ever saw. After four years' use of "Scalecide" exclusively as a Winter wash, the same orchard is pronounced one of the cleanest in the State, and produced in 1910 over 11,000 barrels of apples, which sold for over \$29,000. If the continued use of "Scalecide" brings an orchard that is half dead to life, is it reasonable to expect injury to a good orchard? "Scalecide" shows greater fungicidal properties than any other Winter wash. "Scalecide" has no substitute. A postal request to Dept. D will bring you by return mail, free, our book, "Modern Methods of Harvesting, Grading and Packing Apples," and new booklet, "SCALECIDE, the Tree-Saver." If your dealer cannot supply you with "SCALECIDE" we will deliver it to any R. R. Station in the U. S. east of the Mississippi and north of the Ohio Rivers on receipt of the price: 50-gal. bbls., \$25.00; 30-gal. bbls., \$16.00; 10-gal. cans, \$6.75. 5-gal. cans, \$3.75. Address, B. G. PRATT COMPANY, 50 Church Street, New York City.

50-GALLON
BARREL
delivered
to any
railroad
station in
the United
States, \$30

been ten years ahead of our present position in the march of progress. It was this big problem gradually dawning on the consciousness of the intelligent producers that opened the door for a wider range of markets. The idea was first worked out on practical lines in California, and has extended itself, and will continue to extend itself, to meet the growing needs of each community. Its evolution is inevitable. It is based on sound doctrine and, though some may fail temporarily, out of the ruins and experience others will rise with renewed strength and determination to meet the situations as they continue to develop. In this connection let me say a few words on, as I conceive it to be the duty devolving on the individual producer to lend his aid, through co-operation, with his neighbors in forming these organizations. Any fair-minded man will have to admit that the theory is right. He will also admit that the necessity exists, and the third step is for him to say, by his actions, that he will either turn in and do his share or sit quietly and inexpensively by and see his neighbor do for him what he knows he should be assisting in for the general good.

In the Good Book can be found, among thousands of other useful everyday guides, the saying: "He that is not with me is against me." And the application is good to this particular case, and to show that it is true I have been asked by some so-called friends of our organization why Mr. Jones and Mr. Smith are not members of our exchange. I don't like to say what I think is the controlling reason, so I invariably say, "God only knows, and He won't tell." However, be that as it may, you gentlemen are broad and liberal enough to know, from the experience of your own organization or some closer working deal at home, that there is always some fellow who wants you to kill his birds for him. I am an optimist. I believe people are getting better every day, and bigger and broader, and, that while the millenium is a long way ahead of us, yet we can see hope for betterment.

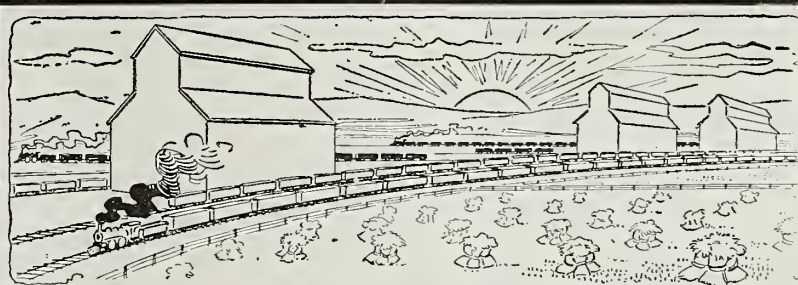
Every commission merchant, whose reputation and standing is good enough to qualify, should become a member of his branch league, just as every grower who wants to help better his own and his neighbor's condition should affiliate with his local organization. You can hardly pick out a trade paper published in the United States today that does not contain information of farmers' organizations in one line or another of agriculture. The federal government is lending aid, through its experts employed in the agricultural department, to point out the proper methods of cultivation, and their influence and

investigations are being extended to the great problem of transportation, and the results are given to the public from time to time in their bulletins. The government is also making a study of organization methods and plans of the various successful producers' organizations throughout the country with the view of enabling them to decide the most practical and successful plans which can be adopted and recommended by them. To sum up the proposition, organization is indispensable to the individual producer for the scientific and practical solution of the market problem.

Now what does this market question consist of? The disposition to the best advantage of the greatest possible volume of perishable products, coupled with the transportation problem of actual delivery in proper condition, for consumption. I have pointed out some of the most important features of the situation at the producers' end. Next in line is the selling end, with which your organization is so closely allied. The commission merchant occupies a position of trust, with relation to the producer, that is the most unique and striking of any commercial house engaged in most any line of business that you could name. The producer has his investment at home. He plants his orchard and cultivates to the bearing stage, or he rents his few acres, goes in debt for his fertilizer, performs the labor with himself and family, matures the crop, and then comes the crucial point of realizing on his labors. His name no doubt has been given in among the numerous shippers on his particular railroad company and, through a system of publicity, reaches the trade. He receives advertising matter from hundreds of commission houses, and is solicited by representatives direct from the commission houses or by home local agents whose only interest is a division of the commission man's percentage. Frequently this grower has no means of knowing that the houses soliciting his business even exists, yet he ships on commission and hopes for results. For this reason I say the commission house occupies a unique position of trust. Trusted by the farmer with his all. Would you, gentlemen of this organization, place yourself in a similar position? Would a bank loan you money without a personal knowledge of your moral and financial standing? The national and state governments prescribe laws governing credits. Would a merchant sell his wares on such a basis? Would you sell this same produce which is shipped you on commission on the same credit basis? A thousand times no.

IN THE PALOUSE COUNTRY, WESTERN IDAHO

Fine fruit farm, six miles from Moscow, Idaho. Mainly winter apples, though all fruits of temperate regions are on the place. Two-thirds of trees, about 1,000, are 12 years old, the balance younger. Crop estimated for this year 2,000 to 3,000 packed boxes. Will yield, barring accidents, 20 to 25 per cent on price. \$10,000, part cash, or \$9,000 cash. Address L. F. HENDERSON, Hood River, Oregon, or Moscow, Idaho.



BUY LUMBER AND BUILDING MATERIAL NOW!

Don't Wait—Car Shortages are Sure in Moving This Year's Big Northwestern Crops

You who have been reading the Northwest reports, and hearing the wheat-fields' call for help know the abundant crops that this season will produce—in all states above the average; in some states the largest ever harvested. You know the great finish that wheat is making; and that the fruit crop promises to exceed the record of 1910; that the whole country is feeling a sure revival of confidence.

You Who are Planning to Build This Season Should Consider What This Means to You!

The prosperity that makes possible the great increase in building, especially in the rural districts, means a heavy strain on the railroads. Crops cannot wait—they must be moved when ready.

The shrewd buyer is the one who anticipates these difficulties; **there never was a better time to buy building material than now.**

NOW—before the inevitable transportation difficulties in moving crops. NOW—when you can buy **direct from the owners of the timber itself** and be **sure of prompt deliveries.**

Seize this chance to save on your building material. You need not pay the profits of five middlemen on

LUMBER, SASH, DOORS, MILLWORK, HARDWARE, PAINT

Save these profits for yourself by buying direct from the men who own the resources. We log our own timber, cut it in our own mills and ship it direct to the user.

You can reduce the cost of your building 25% to 50% and be sure of prompt delivery by ordering now

We'll prove this to you if you will send for our big price list of lumber and building material, or better still, **send us your bill of materials NOW and let us estimate it for you.**

All our products carry a refund-your-money guarantee of highest quality and our direct-to-you low prices will be a surprise.

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8" x 8"
\$1.54
EACH

2" x 8"
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5 CRABS
PANELS
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CLEAR
FIR
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LIM. FT.

RED
CEDAR
BEVEL
SIDING
\$23.00

24"
x 28"
2 L.T.
\$1.20

2" x 4"
FIR
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LAST YOU LONGER"

Hewitt-Lea-Funk Co.
HIGH IN
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SHIPMENT
625 First Ave
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Cut the Cou-
pon and mail
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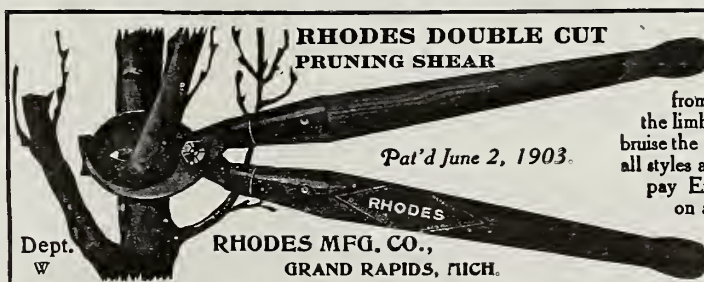
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Funk Co., 625
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Seattle.

I enclose stamps for
lumber list quoting
price laid down at my
station.

Name _____

Address _____

Occupation _____



RHODES DOUBLE CUT
PRUNING SHEAR

Pat'd June 2, 1903.

Dept.
W

RHODES MFG. CO.,
GRAND RAPIDS, MICH.

THE only
pruner
made that cuts
from both sides of
the limb and does not
bruise the bark. Made in
all styles and sizes. We
pay Express charges
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Write for
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Twenty-five years' residence in Hood River. Write for information regarding the Hood River Valley. Literature sent upon request. Address all communications to

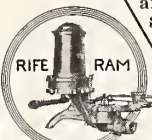
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RAISE WATER FOR YOUR FRUIT
—all you need when
and where required
—with an automatic
Rife Ram.

Costs little to install
—nothing to operate.
Raises water 30 feet
for every foot of fall.
Land lying above
canal or stream sup-
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Pumps automatically
day and night, winter
and summer. Fully
guaranteed.

If there is a stream,
pond or spring with-
in a mile write for
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offer, free.

RIFE RAMS
Pump Water
Automatically
Day and
Night



RIFE ENGINE CO.
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Standard Varieties

Prices Right and Stock First Class

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Famous Hood River Apples

Spitzenbergs, Newtowns, Arkansas
Blacks, Jonathans, Ortleys, Bald-
wins, Winesaps, R. C. Pippins, Ben
Davis, M. B. Twigs

Look Good, Taste Better, Sell Best
Grade and Pack Guaranteed

Apple Growers' Union
Hood River, Oregon

J. M. SCHMELTZER, Secretary
HOOD RIVER ABSTRACT COMPANY
HOOD RIVER, OREGON
ABSTRACTS INSURANCE
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BUY AND TRY White River Flour

**MAKES
Whiter, Lighter
Bread**

The laws and requirements of safe business have forced into existence the credit agencies, bond companies, trade organizations, etc., and every conceivable safeguard is thrown around the conduct of credit and trust. Out of this condition described grew the necessity of your splendid organization. Its purposes and standards are high, and I say all hail to the National League of Commission Merchants of the United States. It should be upheld and encouraged by the producer who ships as an individual and by shipping organizations, as well as by all honest, straightforward men. Its membership should be a badge of honor and everything that makes for honest methods and high standing. I should like to see its influence so strong that a firm that could not measure up to its standard could not do business among honest men. Your organization should fill the same want or necessity in a market that the shipping organization does at home with the producer, and the shipper should have only one yardstick to measure his honesty in packing his goods with yours in selling and accounting. The producers' organizations should be able to deal with you on a mutual basis of confidence, and in order to do that their standard should be as high as yours. We all know that no organization can be perfect, but it should be our aim to place our organization on a higher plane and benefit by the mistakes of the past, and through this method in the course of time, with proper motives as a foundation, we should be able to place it beyond criticism.

In order to maintain a proper distribution of perishable products the shipping organization is indispensable. It is often argued by commission houses that they are the logical distributors for the individual grower. This argument, if followed to a practical conclusion, would present the proposition of, say, one hundred or more houses that sell oranges in New York City, each advising his own shipper disposition of his daily shipments; and where do they advise shipment? Certainly not to Minneapolis, and not to Buffalo, nor Chicago, nor Montreal, nor Boston or Providence. But they instruct "ship to New York," and the distribution which follows is a natural glut in their particular market. Now I say that this principle is all wrong. One shipping manager in close touch with all of the markets is the logical man to decide the volume of shipments each day for each market, with a view of keeping prices on a uniform basis, fixed by supply and demand. Your organization, gentlemen, is the solution in the market, and at the producing end properly organized exchanges. Your league was originally composed of branches in the various cities, and in order to make for the most good the national league was developed; and on the same theory there must eventually come a close working arrangement between all shipping organizations. Such union of interest would be help-

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Illustrating the most important line of farm machines made. Tells when, where and how to use them. It answers every question you might ask about farming implements. Send postal today for package No. 146
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BOISE, IDAHO

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Has no peer in the Northwest

And so we have established

The Fruit Journal

along similar lines in behalf of the great irrigated fruit districts of the Rocky Mountain region, a companion paper to this, your favorite fruit magazine.

We have made it up-to-date, clean, high class editorially, mechanically and pictorially.

The subscription rate is \$1.00 per year. It is worth it.

**THE INTERMOUNTAIN
FRUIT JOURNAL**

Grand Junction, Colorado

ful in the highest degree, and among the many benefits it would tend to strengthen the influence of all such interests as yours, and the dishonest commission man, who does exist, as dishonest men do in all lines of business, would either be forced to revise his methods or get out of business. The relation that should exist between the producer, through his organization, and his commission merchant, as the marketing agency, should be one of perfect confidence and trust, based on a personal acquaintance and a knowledge of the fact that each is entitled to the confidence of the other.

Hamburg, Germany, As An Apple Market

By J. H. Lütten & Son, Hamburg, Germany

THE season 1911-12 in our country as regards Western States apples was rather an interesting one. We have seldom seen such ups and downs in prices for apples as was the case during the past season, greatly due to the fact that shipments were effected in a very irregular way to this market, and of numerous varieties, regardless of the advice we are continually giving that shippers should confine their export of box apples from the Western States to certain popular varieties and grades. Before Christmas time we can do very well with the very finest "extra fancy" Jonathans, Ben Davis, Ganos and similar varieties, whereas after Christmas, in the second part of the season, the consumption of ordinary apples is very much reduced, and what people then require of this kind of fruit they prefer to take in barrels, which come out much cheaper, and which we get in fairly large quantities regularly from Canada and the States of Maine and New York. Therefore, in normal seasons shipments of the above named varieties of box apples should cease after Christmas and be replaced by the fine winter sorts like Winesaps, Yellow Oregon Pippins, Rome Beauties, etc. Of all the Western States apples it is the Winesaps and Yelow Oregon Pippins which are the favorites here. Even in these varieties, however, we noticed a great deal of difference, for while the Hood River Oregon Pippins and the Wenatchee Winesaps were generally perfect, both as regards packing and selection, the Colorado Winesaps showed, to their disadvantage, rather reckless selection of sizes and qualities; and further, the apples were seldom wrapped in paper. Besides, the genuine, legitimate Winesaps are very much preferred here to the variety named "Staymans," which are duller in color, although also of excellent taste. We do not mean to say that Staymans should not be shipped to Hamburg, because they also do well here, but, of course, they do not reach the price of the genuine Winesaps, which have the great advantage of a much finer and brighter dark red color.

Yellow Oregon Pippins came here in very small quantities last season, as

IN TORRID AFRICA
OR
FRIGID ALASKA

J-M ASBESTOS
ROOFING

Stands the Test
of Severe Weather

The hottest weather cannot cause J-M Asbestos Roofing to dry out, melt or run—the coldest weather cannot crack it—gases, chemical fumes, or salt air cannot injure it. There is not a particle of perishable material in this roofing.

J-M Asbestos Roofing is practically *indestructible* because it is *mineral through and through*. It is composed of Asbestos and Trinidad Lake Asphalt. Asbestos is a rock and, of course, everlasting. And Trinidad Lake Asphalt is the same material that has withstood the severe duties of street paving for over forty years.

There are buildings in all parts of the country where this roofing is still giving satisfactory service after more than a quarter-century of wear.

Due to the non-conducting qualities of the Asbestos, this roofing keeps buildings cooler in hot weather and warmer in cold weather. Being composed of Asbestos, it affords perfect fire protection.

And, with all these advantages, it costs less per year of service than any other roofing because it lasts longer and never needs to be coated or graveled.

J-M Asbestos Roofing is suitable for any type of building, anywhere. Comes ready to lay.

Sold by hardware and lumber dealers—or shipped direct from our nearest branch where we have no dealer.

Write for sample of the curious Asbestos rock from which this roofing is made, and our Book No. 1859

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MANUFACTURERS OF ASBESTOS
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THIS low-priced harrow for orchards and vineyards—and general use—is a world-beater. Wonderfully light of draft—weight carried on wheels, not on horses' necks. Great worker—20 to 30 acres a day with one team—and every inch of soil cultivated thoroughly—lifted and turned in long wavy level. Best of all—it hangs low and has great extension—making it a snap to work right up to trees without horse or driver disturbing boughs or fruit.

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WRITE TODAY for catalog and 30 day trial offer. Pick the machine suited to your soil and orchard and use it for a month—and send it back if you don't find it the finest cultivator made.

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"Modern Orchard Tillage"—written by highly successful orchardist—contains information that may be worth hundreds of dollars to you Sent for the asking.



Light Draft Harrow Co.
901 E. Nevada St. Marshalltown, Ia.

WHEN WRITING ADVERTISERS MENTION BETTER FRUIT

the crop ran very small, for which reason they commanded enormous prices, varying from M 16. to M 22. in sale. One dollar equals M 4.22, but the best "extra fancy" Winesaps, toward the end of the season particularly, also made fancy prices, and we were ourselves able to return sale results of M 17. to M 21. per box, from which there has only to be deducted our commission and sale expenses, also through freight from the states via New York to Hamburg. The sea freight may be reckoned as under: For box apples in cold storage, 22½ cents per cubic foot; for box apples in common storage, 15 cents per cubic foot. And we believe the railway rate from the Western States to New York runs about one dollar per hundredweight.

There is no apple to beat the finest Winesaps or Oregon Pippins for Hamburg and the whole of the fancy trade of Germany as well as that of the surrounding countries, like Russia and Scandinavia, who get their supplies of this kind of fruit in our market and regularly pay very fine prices for the best specimens of these two varieties. We would, therefore, strongly recommend our friends in the states to follow our advice, which would be, as explained above, to ship to Hamburg until Christmas their cheaper sorts of apples, like Ben Davis in its many varieties, and only a few Oregon Winesaps and Yellow Pippins; but after Christmas, particularly from February onward, say until the end of April, to send regularly their very finest stocks of best genuine Winesaps, Staymans, Yellow Oregon Pippins and similar varieties of finest, juicy winter apples. Against our advice, several of our friends late in the season sent us supplies of Ben Davis, which, of course, brought disappointing results, as this apple seems to lose its flavor once it has been put in cold storage for some time and gets rather mealy. That is why this variety should, if possible, find its outlet in the first part of the season when it is at its best. For instance, while Winesaps easily brought about M 20. at the end of this last apple season, Ben Davis at the same time even found difficult sale at M 7., which illustrates what we say above.

As regards the quantity we can do with here it is difficult to say, because every year varies and several circumstances have to be taken into consideration, such as our home crop of apples, etc., but this more particularly affects the early sorts, which are sent here until Christmas, whereas after that time the finest winter sorts described above find no competition from any other quarter, and there is always a good demand for them, which would enable us to do with two to three thousand boxes easily every week, and even more, of the very best qualities, and with about the same quantity of apples of the other varieties until Christmas time. We received last season quite a number of California Newtown Pippins as well, which fortunately, in comparison with other

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years, were in the main found free from San Jose scale, and therefore had a comparatively favorable reception here, but, of course, this is an apple which has to be sold at a cheap price, as it is used for more common consumption. This variety, however, should not be sent here after March, as the quantities which came here April last had to be given away at very low prices; demand being entirely cut off for ordinary apples at this time of the year and only the very best varieties attracting the attention of the buyers.

The Western State apple business up to now being mainly in the hands of New York firms and very little being done from the producing quarters to Hamburg direct, it has been rather a casual business, as the New York firms only shipped to Hamburg when they could not get rid of their stuff in New York or speculate on a good market here at certain moments. We cannot, of course, blame them for this, but the proper way in which to work up a regular trade for Western State apples in Hamburg would be to receive regularly, right through the season, from the beginning till the end, a certain supply of the best grades in order that American apples, and particularly those from the Western States, should become a more and more important article in our market. In a similar way an enormous business has been gradually worked up in our market for Valencia oranges, Italian lemons, Almeria grapes, states apples in barrels, and also Canadian apples. To show you the enormous fruit trade in Hamburg we may mention that we received in seven months of the past season close to two million cases of Spanish oranges, principally from Valencia and Murcia, with an average of 600 oranges per case, or 250 per box, the latter being the packing used in Murcia. Briefly we may say that in all directions our market is increasing rapidly and enormously, and we may say that at this period of the year we are selling, for example, thirty to forty thousand stems of Canary bananas weekly.

There is not the slightest doubt that Hamburg would soon be one of the most important outlets if the interested parties paid the necessary attention to the development of this particular trade, which so far has not been done. We repeat, that the only way to make this business a success would be to have our market regularly supplied in accordance with what we say in this report. We speak of two to three thousand boxes weekly, as we do not want to be too sanguine at the beginning, but we should not be surprised, if our buyers knew that box apples were coming regularly to our market in larger quantities, to find we could without difficulty dispose of ten thousand boxes weekly. This figure, however, can only be arrived at gradually, and we must go on slowly and regularly, taking the chances of the market and not desist when for some special circumstances a certain sale should not come up to expectations. So far the

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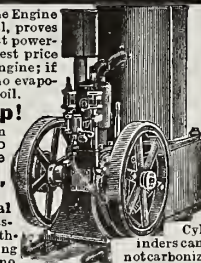
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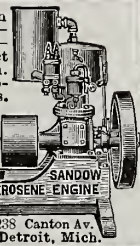
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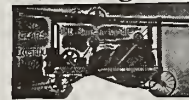
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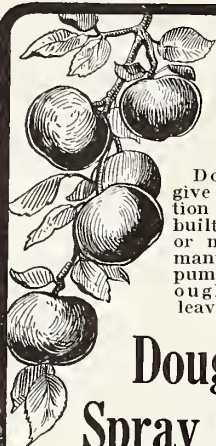
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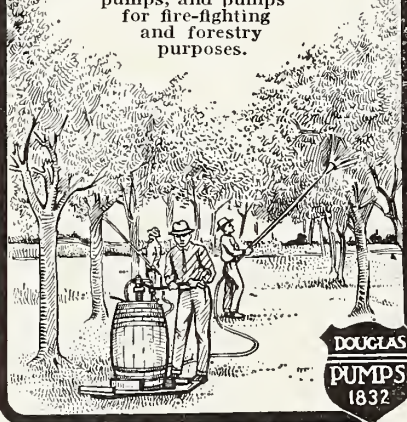
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Hamburg market has proved satisfactory to all the fruit producing countries in the world, and we do not see why the same should not be the case as regards Western State apples, which, from February on, have no competition until the Australian apples begin to arrive; and by that time the American apple season is generally finished. How to organize the business and arrange that shipments are always kept at a certain level, etc., has to be left in the hands of the shippers and growers, but we voluntarily offer our most energetic assistance, with a view to realizing what we have set forth above.

It must not be overlooked that the production of Western State apples, on account of extensive and numerous fresh orchards, will during the next few years be such an important one that the New York market cannot any longer control the total output, and in order to keep up the value of the apples the growers and speculators have to consider the various markets to which they may export their produce, and we think we can say, without fear of contradiction, that there is no other in the whole of Europe which offers brighter prospects than Hamburg.

Hamburg, as you are no doubt aware, on account of its geographical situation and splendid connections by regular steamship lines to the north of Russia, Scandinavia, etc., and excellent railway facilities to even the smallest places on the European continent, is in an enviable position as regards transport, and may be regarded as the predominant distributing center. Further, the organization of fruit sales in Hamburg is perfect, as is acknowledged not only locally but also by English and American experts in the fruit business whom we have the pleasure of seeing here from time to time, when they wish to study such matters. We should be pleased to welcome more of our American friends who are interested in this particular trade, and we are sure they would be convinced that what we say herein is correct. We have the fullest confidence in the future of the apple trade in our market, and we think this will be still further assured when the new Panama canal is opened, which will give added facilities for shipments from the Pacific Coast to Hamburg, while greatly reducing the cost of carriage. We are always at the disposal of our American friends for the purpose of furnishing any information they may desire regarding the Hamburg market, as it is our wish to extend in every way possible the trade for finest apples—to our mutual advantage.

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Summer Pruning Limited to Special Conditions

By P. S. Darlington, District Horticulturist
Wenatchee, Washington

SUMMER pruning is a devitalizing practice and should be limited to certain special conditions. While there are certain conditions under which summer pruning is beneficial, in my opinion indiscriminate summer pruning is harmful in the extreme. Because so much indiscriminate and harmful summer pruning has come under my observation in the last year or two it would seem as though a few suggestions along that line might do some good now, at the beginning of the summer season. Let us see first what are the objects sought in summer pruning. There are three principal objects, first, to throw the tree into fruit production; second, to check excessive growth; third, to get two years' growth in one. These are the main reasons ordinarily advanced for summer pruning.

The first of these is the most important and the object most commonly sought—fruit production. Summer pruning does accomplish this end, or at least it has a tendency to throw a tree into fruit production. But so does any other injury to the tree accomplish the same result. Did you ever notice a little two-year-old tree in the orchard hanging full of apples? If you see such a tree examine it closely—it probably has a borer in it or is otherwise injured. Most of us have heard that old idea advanced of driving rusty nails into the tree to supply the needed iron, and thus making the tree more productive. Of course, as a matter of fact, the iron supplied by those nails had nothing to do with making the tree more productive. It was simply the injury done the tree that made it bear heavier. Summer pruning causes productiveness and for the same reason. Anything that checks the growth or weakens the tree has a tendency to throw it into bearing. The philosophy of this is that any tree or plant tries to reproduce itself before it dies. If it is in an injured and weakened condition it makes a strenuous effort to bear fruit and seed lest it might die. That is one of the laws of nature.

Now let us see how summer pruning is a devitalizing practice and why it acts the same as any other injury. The roots of the tree take up from the soil the crude chemical elements in solution. This crude material passes up through the sapwood of the tree until it finally reaches the foliage. Through the foliage large quantities of water are evaporated and the crude material is digested or transformed into true plant food and goes back through the cambium layer and nourishes every part of the tree from the tips of the young shoots to the ends of the roots. But this crude material taken up by the roots is of no value as nourishment to the tree until it has been transformed in the foliage. If we cut off part of the foliage (summer prune) we deprive the tree of just that much ability to digest its food. We check the growth of the

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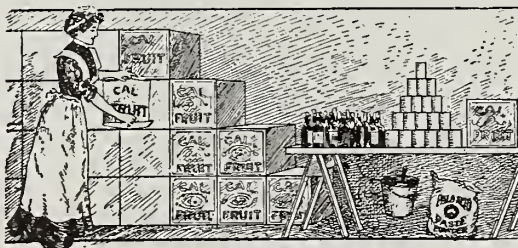
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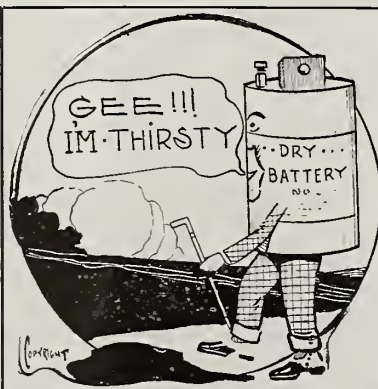
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tree, upset the balance between the roots and the foliage and weaken the tree. It is true that this causes productiveness, but productiveness at the expense of wood growth and vitality. Why, then, should we summer prune young trees—trees from one to five years old? Is it not wood growth that we want on trees of that age? Is it not better to grow a big, vigorous tree, capable of bearing lots of fruit when it is time for it to bear than to have a stunted tree that will bear some fruit prematurely?

Most of our varieties bear heavily one year and light the next. The tendency is to summer prune in the year that they are light. But what is the use, the tree will probably bear heavily the next year anyway. If the summer pruning is done in the heavy year a lot of fruit is cut off and a lot more is knocked off, and "a bird in the hand is worth two in the bush." Of course summer pruning in the heavy year may be considered a method of thinning, but it is not a very satisfactory method. Which, then, is the year to summer prune, the heavy year or the light year? A tree that is of bearing age and makes an overly vigorous growth year after year and does not bear fruit is undoubtedly benefited by summer pruning.

There is an idea that has been given a good deal of publicity through the newspapers and the horticultural press in recent years—an idea that has seemed plausible to a good many people, but which as a matter of fact is entirely erroneous. It is the idea that by summer pruning you can get two years' growth in one. We do not get two years' growth in one. As a matter of fact we get less than one year's growth should be. We do, of course, get the limbs to branch twice in that way—once in the spring and once after the summer pruning. But we have not gained anything because the original limb is not as large as though it had not been touched, and the new branches are slender and succulent and are often injured by the winter.

To sum up, then, I would emphasize these four points: First, summer pruning on young trees, in most cases, is more harmful than beneficial; second, summer pruning is not a very satisfactory method of treating biennial bearers; third, summer pruning does not produce two years' growth in one; fourth, for trees of bearing age that are overly vigorous and do not bear fruit summer pruning is beneficial.

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Yours truly, C. H. SPROAT.

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